Appendix A

Noise Assessment Report

Environment

NextEra Energy Canada, ULC.

Bluewater Wind Energy Centre – Noise Assessment Report

Prepared by:

AECOM
5600 Cancross Court, Suite A
Mississauga, ON, Canada L5R 3E9
www.aecom.com

905.501.0641 tel
905.501.0181 fax

Project Number:

60155032

Date:

February, 2012

AECOM Signatures

Report Prepared By:

Buddy Ledger, P.Eng.
Acoustics and Vibration Engineer

Report Reviewed By:

Alan Oldfield, MEng, CEng(UK), P.Eng.
Acoustics Engineer

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1. Introduction

AECOM was retained by NextEra Energy Canada, ULC (NextEra) to prepare a Noise Assessment Report for the proposed Bluewater Wind Energy Centre (Bluewater). This report has been prepared in accordance with the Ontario Ministry of the Environment (MOE) guideline "Noise Guidelines for Wind Farms – Interpretation for Applying MOE NPC Publications to Wind Power Generation Facilities" (October 2008). This report will form part of the Renewable Energy Approval (REA) application for the Facility as required under Ontario Regulation 359/09.

2. Project Layout

Approval is being sought for forty-one (41) wind turbines each rated at 1.6 Megawatts maximum generation capacity. However, it is expected that only thirty-seven (37) of the wind turbines will actually be installed in order to achieve the total peak generation target of approximately 60 Megawatts facility wide. All of the wind turbines will feed into a centrally located transformer substation.

The proposed project is located in Huron County, within the Municipalities of Bluewater and Huron East. The Project Study Area consists of the areas being studied for the wind farm components (Wind Energy Centre Study Area), as well as for the interconnection route (i.e., the area being studied for transmission lines to connect the Project to the electrical grid) (Transmission Line Study Area). The Wind Energy Centre Study Area is generally bounded by Blackbush/Bronson Line to the west, Mill Road to the north, Concession 5 Road to the east, and Danceland Road/Staffa Road to the south, in the Municipality of Bluewater. The Transmission Line Study Area is located to the east of the Wind Energy Centre Study Area, and is generally bounded by Concession 5 Road to the west, Mill Road to the north, Huron Road and Perth 183 Road to the east, and Staffa Road to the south, extending into the Municipality of Huron East.

A figure showing the project location, wind turbine layout and transformer location is provided in Appendix A.

3. Noise Assessment Guideline

Part V.0.1 of the Ontario Environmental Protection Act R.S.O. 1990 (EPA) addresses the approvals process required for renewable energy projects and Ontario Regulation 359/09, which forms part of the EPA, outlines the specific requirements for obtaining a Renewable Energy Approval (REA) from the MOE.

As required by O.Reg. 359/09, noise from wind farm projects requiring approval within Ontario are assessed using the MOE guideline: "Noise Guidelines for Wind Farms – Interpretation for Applying MOE NPC Publications to Wind Power Generation Facilities" (PIBS 4709e, October 2008). This guideline sets the definitions, assessment procedures and noise level limits for noise assessments of wind farm projects.

The project area is best defined as Class 3 rural, as per MOE Publication 4709e. A Class 3 Area is defined as "a rural area with an acoustical environment that is dominated by natural sounds having little or no road traffic, such as the following: a small community with less than 1000 population; agricultural area; a rural recreational area such as a cottage or a resort area; or a wilderness area." The MOE noise level limits, at integer wind speeds, for points of reception in Class 3 areas are summarized in Table 1 below.

Table 1. Noise Level Limits for Wind Turbines

Point of Reception Classifications	1-hr L_{EQ} Sound Level Limit (dBA) at 10m height Wind Speeds (m/s)				
	Less than or equal to 6 m/s	7 m/s	8 m/s	9 m/s	Greater than or equal to 10 m/s
Class 1 & 2 Areas	45.0	45.0	45.0	49.0	51.0
Class 3 Areas	40.0	43.0	45.0	49.0	51.0

4. Noise Sources

The wind turbine model proposed for this project is the GE 1.6-100 manufactured by General Electric. This model has a hub height of 80 metres, a rotor diameter of 100 metres and is designed to operate between 9.75 and 16.18 revolutions per minute. The GE 1.6-100 has an electrical generation rating of 1.6 Megawatts. Manufacturers' noise data for the GE 1.6-100 are summarized in Table 3 of Section 8 and the original manufacturer's datasheet is provided in Appendix D. The noise datasheets provided have been prepared and reported in accordance with IEC 61400-11 (equivalent to CAN/CSA-C61400-11). The calculations used to adjust for site specific wind shear are also presented in Appendix D.

The electricity generated by each wind turbine will be collected at a central transformer substation. The performance specification of the transformer will require that the noise emissions be measured in accordance with ANSI C57.12.90 at the highest (MVA) rating with all fans in operation and at the tap position that creates the highest current. The performance specification will require that the average sound pressure level measured in accordance with Section 13 of ANSI C57.12.90 shall not exceed 80 dBA over the measurement surface (as defined in the ANSI standard). An estimate of the noise emissions expected from the transformer is provided in Table 5. Appendix D includes a detailed calculation to support the transformer emission estimate. Note that a 5dB penalty has been added to the transformer emission level in the noise prediction modelling as per the requirements of PIBS 4709e.

The MOE requires that the cumulative noise impact of existing or proposed[1] wind farms also be included in the noise impact analysis. To that end all existing or proposed wind farms within 5 kilometres of the Bluewater Wind Energy Centre were included in the noise impact analysis. There is one such facility which is named The Zurich Wind Farm. The Zurich Wind Farm consists of one (1) Enercon E-48 model turbine which has a rated generation capacity of 800 kilowatts. Manufacturer's noise data for the E-48 are summarized in Table 4 of Section 8 and the original manufacturer's datasheet is provided in Appendix D. The noise datasheets have been prepared and reported in accordance with IEC 61400-11 (equivalent to CAN/CSA-C61400-11). The calculations used to adjust for site specific wind shear are also presented in Appendix D.

Table 6 of Section 8 provides the coordinates of all noise sources considered in the noise impact analysis and assessment.

5. Points of Reception

Table 7 in Section 8 lists all of the points of reception considered in the noise impact analysis as well as their coordinates. The points of reception have been classified into four (4) different categories which are outlined in Table 2, below.

[1] *Proposed projects which have not yet published a site plan do not have to be accounted for in the noise impact analysis as insufficient information would be available to do so.*

Table 2. Point of Reception Classifications

Class	Number of Points of Reception	Description	Remarks
POR	625	Non-participating	MOE Limits Apply
PR	76	Participating	MOE Limits Do Not Apply
VPO	272	Vacant Lot Non-participating	MOE Limits Apply
VPR	69	Vacant Lot Participating	MOE Limits Do Not Apply

The classifications POR and VPO are both non-participating and are subject to the noise level limits outlined in the MOE noise guideline (PIBS 4709e, see Table 1).

The classifications PR and VPR are both participating and are not subject to the noise level limits outlined in the MOE noise guideline. Participating points of reception are associated with the wind farm development via a legal agreement with the owner, of the subject property, to allow the installation and operation of wind turbines or related equipment.

6. Detailed Noise Impact Assessment

The noise analysis for the Bluewater Wind Energy Centre was completed using the Cadna/A environmental noise modelling software. The noise modelling was conducted in accordance with the international standard ISO 9613-2. The noise predictions were calculated using downwind propagation from each source to each point of reception, this method produces a theoretical worst case prediction at each point of reception. The noise impact calculations were completed using octave band spectral values in the range of 63 to 8000Hz for each integer wind speed from 6 to 10m/s.

The noise model was configured to calculate the contribution of each noise source within 5 kilometres from each point of reception. The air attenuation and ground attenuation calculation within the model were configured according to Section 6.4.10 of the MOE noise guideline (PIBS 4709e).

The noise impact at each point of reception, for each integer wind speed from 6 to 10m/s, is presented in Table 7 within Section 8. All of the noise predictions where completed in accordance with the detailed requirements of the MOE noise guideline (PIBS 4709e).

7. Results and Compliance

The results of the noise modelling in Table 7 within Section 8 show that the wind energy centre is in compliance with the MOE noise level limits at all points of reception within 1500 metres of turbines associated with the project[2]. Therefore, the 625 non-participating and 272 vacant lot non-participating points of reception assessed comply with the MOE sound level limits for Wind Turbines in Class 3 areas (See Table 1). Appendix B includes noise contour maps for each integer wind speed from 6 to 10m/s and a sample calculation is provided in Appendix C. In order to achieve compliance with the MOE noise limits in the vicinity of the transformer substation a five (5) metre high noise barrier was required surrounding this source of noise.

[2] *One receptor, B_POR_221, which is closest to the sole turbine of the Zurich Wind Farm (Z_1), experiences noise levels exceeding the 6m/s sound level limit of 40.0 dBA by 0.2 dB. The contribution from Z_1 is 40.1 dBA and the Bluewater Wind Energy Centre contributes a negligible increase of 0.1 dB at this location. The noise levels predicted at B_POR_221 are compliant with the MOE noise level limits for wind speeds of 7 to 10m/s. However, receptor B_POR_221 is not considered further as the distance to the nearest Bluewater turbine is greater than 1500 metres and it is located outside the study boundary.*

8. Summary Tables

Table 3. Wind Turbine Acoustic Emission Summary – GE 1.6-100

Make: General Electric
Model: GE 1.6-100
Electrical Rating: 1.6 Megawatts
Hub Height (m): 80 metres
Wind Shear Coefficient: 0.2627

		Octave Band Sound Power Level (dBA)									
		Manufacturer's Emission Levels					Adjusted Emission Levels				
Wind Speed (m/s)		6	7	8	9	10	6	7	8	9	10
Frequency (Hz)	63	81.4	84.8	86.3	86.4	86.2	84.8	86.4	86.2	86.2	86.2
	125	88.9	92.4	94.4	94.9	95.1	92.4	94.9	95.1	95.1	95.1
	250	92.1	93.4	95.5	96.3	96.9	93.4	96.3	96.9	96.9	96.9
	500	94.3	95.7	95.9	95.7	95.5	95.7	95.7	95.5	95.5	95.5
	1000	93.8	99.2	100.4	100.1	99.9	99.2	100.1	99.9	99.9	99.9
	2000	89.8	96.4	99.2	99.3	99.3	96.4	99.3	99.3	99.3	99.3
	4000	83.9	87.8	90.0	90.3	90.5	87.8	90.3	90.5	90.5	90.5
	8000	67.4	70.7	72.1	72.3	71.6	70.7	72.3	71.6	71.6	71.6
Overall		99.4	103.3	104.9	105.0	105.0	103.3	105.0	105.0	105.0	105.0

Table 4. Wind Turbine Acoustic Emission Summary – E-48

Make: ENERCON
Model: E-48
Electrical Rating: 800 Kilowatts
Hub Height (m): 76 metres
Wind Shear Coefficient: 0.2627

		Octave Band Sound Power Level (dBA)									
		Manufacturer's Emission Levels					Adjusted Emission Levels				
Wind Speed (m/s)		6	7	8	9	10	6	7	8	9	10
Frequency (Hz)	63	79.5	81.6	79.6	79.8	78.6	81.6	79.8	78.6	78.6	78.6
	125	83.6	86.3	86.0	87.3	84.4	86.3	87.3	84.4	84.4	84.4
	250	90.5	93.8	95.1	96.1	93.3	93.8	96.1	93.3	93.3	93.3
	500	92.8	95.7	97.1	97.5	96.8	95.7	97.5	96.8	96.8	96.8
	1000	92.6	94.1	95.5	95.1	97.9	94.1	95.1	97.9	97.9	97.9
	2000	87.4	89.0	89.1	90.0	92.7	89.0	90.0	92.7	92.7	92.7
	4000	83.6	86.1	85.8	88.8	87.6	86.1	88.8	87.6	87.6	87.6
	8000	80.2	83.6	83.6	87.1	84.6	83.6	87.1	84.6	84.6	84.6
Overall		97.8	100.3	101.4	102.0	102.1	100.3	102.0	102.1	102.1	102.1

Table 5. Transformer Acoustic Emission Summary

Octave Band Centre Frequency (Hz)	31	63	125	250	500	1000	2000	4000	8000	Overall
Transformer Sound Power (dBA)	91.0	97.0	99.0	94.0	94.0	88.0	83.0	78.0	71.0	103.0
Tonal Penalty[1] (dB)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Resultant Transformer Sound Power (dBA)	**96.0**	**102.0**	**104.0**	**99.0**	**99.0**	**93.0**	**88.0**	**83.0**	**76.0**	**108.0**

Notes:

1. The tonal penalty is required for transformers serving more than one wind turbine as per MOE PIBS 4709e.

Table 6. Wind Turbine and Transformer Locations

Project Name: Bluewater Wind Energy Facility				
Identifier	**Equipment Make & Model**	**UTM Coordinates**		**Remarks**
		X	**Y**	
SUB	Unknown	449471.5	4815930	Transformer
BT_1	GE 1.6-100	445260	4816548	-
BT_2	GE 1.6-100	445320	4816183	-
BT_3	GE 1.6-100	445565	4813118	-
BT_4	GE 1.6-100	445568	4812063	-
BT_5	GE 1.6-100	445933	4810683	-
BT_6	GE 1.6-100	446088	4809847	-
BT_7	GE 1.6-100	446207	4820836	-
BT_8	GE 1.6-100	446521	4819890	-
BT_9	GE 1.6-100	446485	4819125	-
BT_10	GE 1.6-100	446595	4818636	-
BT_11	GE 1.6-100	446832	4817609	-
BT_12	GE 1.6-100	446877	4816800	-
BT_13	GE 1.6-100	447116	4816186	-
BT_14	GE 1.6-100	447232	4815368	-
BT_15	GE 1.6-100	447186	4814525	-
BT_16	GE 1.6-100	447590	4813794	-
BT_17	GE 1.6-100	447358	4812978	-
BT_18	GE 1.6-100	447341	4812484	-
BT_19	GE 1.6-100	448234	4820588	-
BT_20	GE 1.6-100	448434	4820321	-
BT_21	GE 1.6-100	449105	4819060	-
BT_22	GE 1.6-100	449166	4818561	-
BT_23	GE 1.6-100	449406	4817022	-
BT_24	GE 1.6-100	448974	4816250	-
BT_25	GE 1.6-100	449175	4814818	-
BT_26	GE 1.6-100	449284	4814234	-
BT_27	GE 1.6-100	449400	4813830	-
BT_28	GE 1.6-100	450031	4813877	-
BT_29	GE 1.6-100	450097	4813116	-
BT_30	GE 1.6-100	450058	4812694	-
BT_31	GE 1.6-100	450567	4810875	-
BT_32	GE 1.6-100	450732	4819033	-
BT_33	GE 1.6-100	451219	4819080	-
BT_34	GE 1.6-100	450937	4817380	-
BT_35	GE 1.6-100	451669	4815710	-
BT_36	GE 1.6-100	451756	4815381	-
BT_37	GE 1.6-100	453294	4815596	-
BT_38	GE 1.6-100	449306	4817953	-
BT_39	GE 1.6-100	449597	4815379	-
BT_40	GE 1.6-100	449532	4811269	-
BT_41	GE 1.6-100	450920	4816780	-
Project Name: Zurich Wind Farm				
Z_1	E-48	446741	4808398	Existing Turbine

Table 7. Noise Impact Summary

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_POR_1	POR	4.5	443180.4	4810773.6	2714	BT_4	8134	23.4	25.1	25.1	25.1	25.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_2	POR	4.5	443185.6	4811200.8	2534	BT_4	7866	23.7	25.3	25.4	25.4	25.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_3	POR	4.5	443205.3	4811124.8	2542	BT_4	7897	23.7	25.4	25.4	25.4	25.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_4	POR	4.5	443205.7	4810983.8	2597	BT_4	7983	23.6	25.3	25.4	25.4	25.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_5	POR	4.5	443206.8	4811625.1	2401	BT_4	7601	24.3	26.0	26.1	26.1	26.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_6	POR	4.5	443214.3	4811596.3	2400	BT_4	7612	24.3	26.0	26.1	26.1	26.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_7	POR	4.5	443236.2	4811419.1	2419	BT_4	7696	24.1	25.8	25.9	25.9	25.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_8	POR	4.5	443251.9	4810511	2687	BT_5	8249	23.4	25.1	25.2	25.2	25.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_9	POR	4.5	443254	4811743.7	2336	BT_4	7496	24.7	26.4	26.5	26.5	26.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_10	POR	4.5	443272.6	4811870.9	2303	BT_4	7410	24.8	26.5	26.6	26.6	26.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_11	POR	4.5	443274.8	4811771.7	2312	BT_4	7463	24.8	26.4	26.6	26.6	26.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_12	POR	4.5	443279.6	4812094	2289	BT_4	7284	24.9	26.6	26.8	26.8	26.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_13	POR	4.5	443285.9	4811118.1	2470	BT_4	7837	24.0	25.6	25.7	25.7	25.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_14	POR	4.5	443287.5	4811103.8	2474	BT_4	7844	24.0	25.6	25.7	25.7	25.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_15	POR	4.5	443296	4811274.4	2405	BT_4	7734	24.3	26.0	26.0	26.0	26.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_16	POR	4.5	443351.4	4811869.7	2225	BT_4	7345	25.1	26.8	26.9	26.9	26.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_17	POR	4.5	443354.2	4812765.9	2239	BT_3	6887	25.5	27.2	27.3	27.3	27.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_18	POR	4.5	443360.9	4810832.2	2527	BT_4	7958	24.1	25.7	25.8	25.8	25.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_19	POR	4.5	443385.7	4812062.9	2182	BT_4	7211	25.4	27.1	27.2	27.2	27.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_20	POR	4.5	443388.9	4812935	2184	BT_3	6780	25.7	27.4	27.5	27.5	27.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_21	POR	4.5	443393.4	4812147.7	2176	BT_4	7159	25.4	27.1	27.2	27.2	27.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_22	POR	4.5	443420.8	4812539.2	2199	BT_4	6936	25.7	27.4	27.6	27.6	27.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_23	POR	4.5	443428.1	4813548.4	2180	BT_3	6496	25.8	27.5	27.7	27.7	27.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_24	POR	4.5	443445.9	4812620	2177	BT_3	6875	25.9	27.5	27.7	27.7	27.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_25	POR	4.5	443454.3	4813066.3	2111	BT_3	6664	25.9	27.6	27.8	27.8	27.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_26	POR	4.5	443456.7	4813765.8	2206	BT_3	6392	25.8	27.5	27.7	27.7	27.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_27	POR	4.5	443491	4814089.2	2290	BT_3	6257	26.0	27.7	27.8	27.8	27.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_28	POR	4.5	443494.6	4814344.6	2406	BT_3	6184	25.9	27.6	27.7	27.7	27.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_29	POR	4.5	443513.9	4814970.1	2176	BT_2	6034	26.4	28.1	28.3	28.3	28.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_30	POR	4.5	443531.7	4814758.5	2286	BT_2	6054	26.3	28.0	28.2	28.2	28.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_31	POR	4.5	443532.8	4813833.3	2154	BT_3	6298	26.1	27.8	27.9	27.9	27.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_32	POR	4.5	443538.4	4813520.5	2066	BT_3	6404	26.2	27.9	28.0	28.0	28.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_33	POR	4.5	443561.1	4813823.1	2124	BT_3	6275	26.2	27.9	28.0	28.0	28.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_34	POR	4.5	443572.4	4814184.8	2260	BT_3	6152	26.1	27.8	28.0	28.0	28.0	40.0	43.0	45.0	49.0	51.0	C

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_POR_35	POR	4.5	443586.4	4815417.8	1895	BT_2	5907	27.3	28.9	29.1	29.1	29.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_36	POR	4.5	443602.6	4815518.5	1842	BT_2	5883	27.5	29.1	29.3	29.3	29.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_37	POR	4.5	443651.4	4815941.5	1686	BT_2	5820	28.3	29.9	30.0	30.0	30.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_38	POR	4.5	443677.3	4814643.2	2252	BT_2	5935	26.7	28.4	28.5	28.5	28.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_39	POR	4.5	443700.4	4816689.9	1566	BT_1	5821	28.7	30.3	30.4	30.4	30.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_40	POR	4.5	443701.6	4816651.2	1562	BT_1	5815	28.7	30.3	30.4	30.4	30.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_41	POR	4.5	443716.6	4822419.4	2951	BT_7	8673	20.2	22.0	22.1	22.1	22.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_42	POR	4.5	443750.4	4822472.4	2952	BT_7	8691	20.2	21.9	22.1	22.1	22.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_43	POR	4.5	443783.3	4817526.3	1771	BT_1	5908	27.7	29.3	29.4	29.4	29.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_44	POR	4.5	443795.3	4816282.3	1489	BT_1	5687	29.4	30.9	31.0	31.0	31.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_45	POR	4.5	443804.1	4815875.9	1547	BT_2	5668	29.1	30.7	30.8	30.8	30.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_46	POR	4.5	443831.2	4811087.6	1992	BT_4	7434	26.5	28.1	28.2	28.2	28.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_47	POR	4.5	443838.3	4816870.2	1458	BT_1	5711	29.2	30.8	30.9	30.9	30.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_48	POR	4.5	443838.6	4818216	2191	BT_1	6079	26.7	28.3	28.5	28.5	28.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_49	POR	4.5	443856.7	4811050.2	1988	BT_4	7439	26.6	28.2	28.3	28.3	28.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_50	POR	4.5	443863.5	4811057	1979	BT_4	7430	26.6	28.2	28.3	28.3	28.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_51	POR	4.5	443866.5	4817020.2	1471	BT_1	5710	29.1	30.7	30.8	30.8	30.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_52	POR	4.5	443884.6	4811077.3	1951	BT_4	7400	26.7	28.3	28.4	28.4	28.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_53	POR	4.5	443895.7	4816682.9	1371	BT_1	5626	29.9	31.4	31.5	31.5	31.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_54	POR	4.5	443915.8	4819487.9	2595	BT_9	6597	25.8	27.5	27.6	27.6	27.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_55	POR	4.5	443942	4819032	2545	BT_9	6340	26.3	28.0	28.1	28.1	28.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_56	POR	4.5	443951.8	4823562	3538	BT_7	9419	11.7	13.5	13.7	13.7	13.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_57	POR	4.5	443952.7	4819162.5	2533	BT_9	6396	26.1	27.8	28.0	28.0	28.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_58	POR	4.5	443996.4	4819464.8	2512	BT_9	6517	26.1	27.8	27.9	27.9	27.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_59	POR	4.5	444026	4820586.8	2195	BT_7	7165	25.3	27.0	27.1	27.1	27.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_60	POR	4.5	444035.1	4821955.9	2444	BT_7	8116	22.4	24.1	24.3	24.3	24.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_61	POR	4.5	444078.5	4820310.3	2192	BT_7	6948	25.8	27.4	27.6	27.6	27.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_62	POR	4.5	444081.6	4823496.5	3405	BT_7	9290	13.0	14.9	15.0	15.0	15.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_63	POR	4.5	444090.3	4823749.7	3601	BT_7	9492	11.5	13.3	13.5	13.5	13.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_64	POR	4.5	444095.4	4820587.3	2126	BT_7	7113	25.6	27.2	27.4	27.4	27.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_65	POR	4.5	444099.7	4820606.2	2120	BT_7	7122	25.6	27.2	27.4	27.4	27.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_66	POR	4.5	444102.9	4822347	2590	BT_7	8366	21.8	23.5	23.7	23.7	23.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_67	POR	4.5	444108.6	4820640.3	2108	BT_7	7138	25.6	27.2	27.4	27.4	27.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_68	POR	4.5	444111.8	4820674.7	2101	BT_7	7158	25.5	27.2	27.3	27.3	27.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_69	POR	4.5	444117.4	4821113	2108	BT_7	7452	24.7	26.4	26.5	26.5	26.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_70	POR	4.5	444118.1	4820709.4	2093	BT_7	7176	25.5	27.2	27.3	27.3	27.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_71	POR	4.5	444122.6	4820747.2	2086	BT_7	7198	25.5	27.2	27.3	27.3	27.3	40.0	43.0	45.0	49.0	51.0	C

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_POR_72	POR	4.5	444123.3	4823773.1	3601	BT_7	9493	11.5	13.3	13.5	13.5	13.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_73	POR	4.5	444133.4	4822259.1	2515	BT_7	8279	22.1	23.8	23.9	23.9	23.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_74	POR	4.5	444138.4	4823697.7	3531	BT_7	9422	11.7	13.5	13.7	13.7	13.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_75	POR	4.5	444139.9	4823676.3	3513	BT_7	9403	11.7	13.6	13.8	13.8	13.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_76	POR	4.5	444141.9	4823650.5	3491	BT_7	9381	11.8	13.7	13.8	13.8	13.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_77	POR	4.5	444152.2	4822333.1	2542	BT_7	8324	21.9	23.7	23.8	23.8	23.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_78	POR	4.5	444156.6	4823612	3451	BT_7	9341	11.9	13.8	14.0	14.0	14.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_79	POR	4.5	444157.8	4823600.5	3441	BT_7	9331	12.0	13.8	14.0	14.0	14.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_80	POR	4.5	444158.6	4823563.2	3411	BT_7	9300	12.1	13.9	14.1	14.1	14.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_81	POR	4.5	444159.8	4823585.4	3428	BT_7	9317	12.0	13.9	14.0	14.0	14.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_82	POR	4.5	444174.2	4822144.3	2417	BT_7	8166	22.5	24.2	24.3	24.3	24.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_83	POR	4.5	444177.8	4822109.8	2396	BT_7	8137	22.6	24.3	24.4	24.4	24.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_84	POR	4.5	444184	4821968.9	2319	BT_7	8026	22.9	24.6	24.8	24.8	24.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_85	POR	4.5	444188.1	4819443.9	2319	BT_9	6345	26.9	28.6	28.7	28.7	28.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_86	POR	4.5	444207.3	4811147.2	1640	BT_4	7113	28.4	29.9	30.0	30.0	30.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_87	POR	4.5	444212.2	4823813.2	3584	BT_7	9476	11.5	13.4	13.5	13.5	13.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_88	POR	4.5	444222.1	4823521.1	3339	BT_7	9229	13.9	15.8	15.9	15.9	15.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_89	POR	4.5	444239.5	4821323.6	2027	BT_7	7514	24.9	26.5	26.7	26.7	26.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_90	POR	4.5	444248.2	4821255.4	2003	BT_7	7459	25.0	26.7	26.8	26.8	26.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_91	POR	4.5	444255.4	4821318.7	2010	BT_7	7499	25.0	26.6	26.7	26.7	26.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_92	POR	4.5	444257.8	4823519.5	3317	BT_7	9208	14.0	15.8	16.0	16.0	16.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_93	POR	4.5	444265.6	4821294.6	1995	BT_7	7475	25.0	26.7	26.8	26.8	26.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_94	POR	4.5	444269.3	4823706.5	3463	BT_7	9356	11.9	13.7	13.9	13.9	13.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_95	POR	4.5	444273.2	4821569.9	2068	BT_7	7670	24.4	26.0	26.2	26.2	26.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_96	POR	4.5	444274.2	4821822.8	2170	BT_7	7857	23.8	25.5	25.6	25.6	25.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_97	POR	4.5	444286.8	4823725.1	3469	BT_7	9362	11.9	13.7	13.9	13.9	13.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_98	POR	4.5	444294.3	4823742.2	3479	BT_7	9372	11.8	13.7	13.9	13.9	13.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_99	POR	4.5	444302.9	4822197.2	2341	BT_7	8123	22.8	24.4	24.6	24.6	24.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_100	POR	4.5	444310.1	4822165	2316	BT_7	8094	22.9	24.5	24.7	24.7	24.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_101	POR	4.5	444311.4	4821976	2212	BT_7	7948	23.4	25.0	25.2	25.2	25.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_102	POR	4.5	444317.2	4822131.8	2291	BT_7	8064	23.0	24.7	24.8	24.8	24.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_103	POR	4.5	444344.7	4823487	3240	BT_7	9132	14.2	16.1	16.2	16.2	16.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_104	POR	4.5	444348.6	4822130.9	2265	BT_7	8043	23.1	24.8	24.9	24.9	24.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_105	POR	4.5	444357.6	4822358.2	2395	BT_7	8214	22.5	24.2	24.3	24.3	24.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_106	POR	4.5	444407.8	4822117.9	2209	BT_7	7995	23.3	25.0	25.1	25.1	25.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_107	POR	4.5	444423.5	4822135.8	2207	BT_7	7999	23.3	25.0	25.1	25.1	25.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_108	POR	4.5	444500	4822706.5	2532	BT_7	8404	21.9	23.6	23.8	23.8	23.8	40.0	43.0	45.0	49.0	51.0	C

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_POR_109	POR	4.5	444690	4822820	2497	BT_7	8386	22.0	23.8	23.9	23.9	23.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_110	POR	4.5	444702.4	4822607.4	2324	BT_7	8205	22.7	24.4	24.6	24.6	24.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_111	POR	4.5	444713.8	4823414.1	2979	BT_7	8868	20.0	21.8	21.9	21.9	21.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_112	POR	4.5	444798.4	4821334.3	1494	BT_7	7144	27.7	29.2	29.3	29.3	29.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_113	POR	4.5	444801.5	4810142.5	1254	BT_5	7437	30.8	32.3	32.3	32.3	32.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_114	POR	4.5	444803.5	4822699.7	2333	BT_7	8223	22.7	24.4	24.5	24.5	24.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_115	POR	4.5	444804.4	4822954.4	2541	BT_7	8433	21.9	23.6	23.8	23.8	23.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_116	POR	4.5	444862	4817566.7	1094	BT_1	4891	32.8	34.3	34.4	34.4	34.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_117	POR	4.5	444866.3	4815486.7	831	BT_2	4626	34.6	36.0	36.1	36.1	36.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_118	POR	4.5	444878.5	4822686.1	2278	BT_7	8169	22.9	24.6	24.8	24.8	24.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_119	POR	4.5	444902.6	4811230.6	1066	BT_4	6554	32.7	34.1	34.2	34.2	34.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_120	POR	4.5	444916.1	4822960.8	2486	BT_7	8377	22.1	23.8	24.0	24.0	24.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_121	POR	4.5	444924.7	4811345.2	964	BT_4	6457	33.1	34.6	34.6	34.6	34.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_122	POR	4.5	444937.4	4822666.9	2228	BT_7	8120	23.2	24.8	25.0	25.0	25.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_123	POR	4.5	444966.7	4809318.6	1240	BT_6	8000	29.7	31.2	31.2	31.2	31.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_124	POR	4.5	444999	4822522.2	2074	BT_7	7966	23.8	25.5	25.6	25.6	25.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_125	POR	4.5	445007.3	4822518.2	2066	BT_7	7958	23.9	25.5	25.7	25.7	25.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_126	POR	4.5	445016.4	4822559.9	2095	BT_7	7987	23.7	25.4	25.5	25.5	25.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_127	POR	4.5	445032.4	4809792.3	1057	BT_6	7575	31.8	33.2	33.3	33.3	33.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_128	POR	4.5	445041.4	4822640.1	2148	BT_7	8040	23.5	25.2	25.3	25.3	25.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_129	POR	4.5	445070.6	4809291	1159	BT_6	7965	30.3	31.7	31.7	31.7	31.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_130	POR	4.5	445077.2	4808021.4	1706	Z_1	9048	25.1	26.8	26.6	26.6	26.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_131	POR	4.5	445093.7	4821775.5	1457	BT_7	7303	27.5	29.0	29.1	29.1	29.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_132	POR	4.5	445105	4821802.9	1466	BT_7	7318	27.4	29.0	29.1	29.1	29.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_133	POR	4.5	445174.2	4807894.8	1646	Z_1	9112	25.1	26.7	26.5	26.5	26.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_134	POR	4.5	445222.3	4808615.9	1505	BT_6	8459	28.1	29.7	29.6	29.6	29.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_135	POR	4.5	445243	4822570.1	1984	BT_7	7872	24.3	25.9	26.1	26.1	26.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_136	POR	4.5	445263.8	4811128.2	804	BT_5	6385	35.0	36.4	36.5	36.5	36.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_137	POR	4.5	445269.5	4811108.3	788	BT_5	6396	35.0	36.5	36.5	36.5	36.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_138	POR	4.5	445273.6	4811025.7	743	BT_5	6456	35.2	36.6	36.7	36.7	36.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_139	POR	4.5	445288.7	4819594.6	1267	BT_8	5561	32.6	34.1	34.2	34.2	34.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_140	POR	4.5	445327.8	4824087.1	3368	BT_7	9149	18.4	20.2	20.4	20.4	20.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_141	POR	4.5	445331.8	4820631.5	899	BT_7	6264	33.0	34.5	34.5	34.5	34.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_142	POR	4.5	445336.9	4824080.3	3359	BT_7	9139	18.4	20.3	20.4	20.4	20.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_143	POR	4.5	445338.8	4815611.5	572	BT_2	4145	37.6	39.1	39.1	39.1	39.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_144	POR	4.5	445346.1	4824072	3349	BT_7	9127	18.5	20.3	20.5	20.5	20.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_145	POR	4.5	445358	4824061.7	3336	BT_7	9113	18.5	20.3	20.5	20.5	20.5	40.0	43.0	45.0	49.0	51.0	C

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_POR_146	POR	4.5	445406.2	4820631	827	BT_7	6215	33.7	35.1	35.2	35.2	35.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_147	POR	4.5	445417.4	4823343.3	2629	BT_7	8449	21.7	23.4	23.6	23.6	23.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_148	POR	4.5	445421.9	4808223.9	1331	Z_1	8706	27.6	29.2	29.0	29.0	29.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_149	POR	4.5	445503.4	4811497.4	569	BT_4	5949	37.5	38.9	38.9	38.9	38.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_150	POR	4.5	445529.7	4822563.3	1855	BT_7	7716	25.0	26.6	26.7	26.7	26.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_151	POR	4.5	445537.9	4820277.1	872	BT_7	5862	34.4	35.9	35.9	35.9	35.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_152	POR	4.5	445564.7	4821060.6	680	BT_7	6448	34.8	36.2	36.3	36.3	36.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_153	POR	4.5	445689	4823839.4	3048	BT_7	8767	20.1	21.9	22.0	22.0	22.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_154	POR	4.5	445692.2	4819028	799	BT_9	4887	35.9	37.4	37.4	37.4	37.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_155	POR	4.5	445714.1	4819842.2	808	BT_8	5424	35.7	37.1	37.2	37.2	37.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_156	POR	4.5	445765.5	4821654.7	930	BT_7	6819	31.7	33.2	33.2	33.2	33.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_157	POR	4.5	445767.1	4823903.3	3099	BT_7	8792	20.0	21.7	21.9	21.9	21.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_158	POR	4.5	445772.3	4823952.9	3147	BT_7	8834	19.8	21.6	21.8	21.8	21.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_159	POR	4.5	445780.5	4823850.4	3044	BT_7	8738	20.1	21.9	22.1	22.1	22.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_160	POR	4.5	445791	4818059.3	990	BT_10	4252	35.3	36.7	36.8	36.8	36.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_161	POR	4.5	445799.3	4819886.1	722	BT_8	5397	36.4	37.9	37.9	37.9	37.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_162	POR	4.5	445815.6	4817764.9	1028	BT_11	4090	35.3	36.7	36.8	36.8	36.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_163	POR	4.5	445815.7	4823496.3	2689	BT_7	8403	21.6	23.4	23.5	23.5	23.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_164	POR	4.5	445879.9	4823637.5	2821	BT_7	8503	20.9	22.7	22.8	22.8	22.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_165	POR	4.5	445923.5	4811283.4	600	BT_5	5847	37.4	38.9	38.9	38.9	38.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_166	POR	4.5	445924.3	4817452.4	921	BT_11	3860	36.2	37.6	37.7	37.7	37.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_167	POR	4.5	445925.7	4817414.7	927	BT_11	3844	36.3	37.7	37.7	37.7	37.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_168	POR	4.5	445939.5	4823193.2	2372	BT_7	8076	22.9	24.6	24.7	24.7	24.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_169	POR	4.5	445998.6	4817050.1	893	BT_1	3649	37.3	38.7	38.7	38.7	38.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_170	POR	4.5	446012.7	4816820.2	800	BT_1	3571	37.9	39.3	39.3	39.3	39.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_171	POR	4.5	446033.5	4822298.2	1472	BT_7	7237	27.6	29.2	29.3	29.3	29.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_172	POR	4.5	446062.2	4816126.3	744	BT_2	3415	37.9	39.3	39.3	39.3	39.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_173	POR	4.5	446089.9	4814258.4	1128	BT_15	3772	34.7	36.1	36.2	36.2	36.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_174	POR	4.5	446143.4	4815818.2	901	BT_2	3330	36.9	38.3	38.4	38.4	38.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_175	POR	4.5	446149.3	4814339.3	1053	BT_15	3684	34.9	36.3	36.4	36.4	36.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_176	POR	4.5	446211.3	4814599.4	978	BT_15	3521	35.2	36.6	36.7	36.7	36.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_177	POR	4.5	446215.4	4816643.5	680	BT_12	3333	38.1	39.5	39.6	39.6	39.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_178	POR	4.5	446220.3	4816598.9	687	BT_12	3319	38.4	39.8	39.9	39.9	39.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_179	POR	4.5	446227	4814592.2	961	BT_15	3510	35.3	36.7	36.8	36.8	36.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_180	POR	4.5	446230.2	4814991.8	1064	BT_15	3374	35.5	36.9	37.0	37.0	37.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_181	POR	4.5	446291.8	4813694.4	928	BT_3	3887	35.8	37.2	37.3	37.3	37.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_182	POR	4.5	446293.6	4813986	1043	BT_15	3725	35.5	36.9	37.0	37.0	37.0	40.0	43.0	45.0	49.0	51.0	C

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_POR_183	POR	4.5	446306.6	4813994.9	1027	BT_15	3710	35.5	36.9	37.0	37.0	37.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_184	POR	4.5	446321.2	4814570.3	866	BT_15	3431	35.8	37.2	37.3	37.3	37.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_185	POR	4.5	446335.4	4812981.4	782	BT_3	4305	36.9	38.3	38.4	38.4	38.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_186	POR	4.5	446340.5	4822173.4	1344	BT_7	6984	28.7	30.2	30.3	30.3	30.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_187	POR	4.5	446341.1	4816200.2	775	BT_13	3142	38.2	39.6	39.7	39.7	39.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_188	POR	4.5	446361.1	4814325	849	BT_15	3500	35.9	37.3	37.4	37.4	37.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_189	POR	4.5	446366.9	4812792.2	866	BT_3	4414	36.8	38.3	38.3	38.3	38.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_190	POR	4.5	446403.9	4813280.7	855	BT_3	4053	36.6	38.0	38.1	38.1	38.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_191	POR	4.5	446416.4	4812420.9	921	BT_4	4653	36.6	38.0	38.1	38.1	38.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_192	POR	4.5	446597.3	4811448.9	1014	BT_5	5324	34.5	36.0	36.0	36.0	36.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_193	POR	4.5	446611.3	4813233.2	789	BT_17	3931	37.2	38.6	38.7	38.7	38.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_194	POR	4.5	446621.2	4811481.9	1054	BT_5	5283	34.5	35.9	36.0	36.0	36.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_195	POR	4.5	446681.1	4811490.6	1101	BT_5	5244	34.3	35.8	35.9	35.9	35.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_196	POR	4.5	446700.1	4812925	660	BT_17	4088	38.2	39.7	39.7	39.7	39.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_197	POR	4.5	446702.3	4811491.6	1116	BT_5	5232	34.3	35.8	35.8	35.8	35.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_198	POR	4.5	446725.8	4810463.4	823	BT_5	6118	35.3	36.7	36.7	36.7	36.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_199	POR	4.5	446742.3	4811495.7	1147	BT_5	5207	34.2	35.7	35.8	35.8	35.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_200	POR	4.5	446743	4813747.6	848	BT_16	3494	37.4	38.8	38.8	38.8	38.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_201	POR	4.5	446750.3	4811613.2	1052	BT_18	5103	34.5	36.0	36.0	36.0	36.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_202	POR	4.5	446754.3	4811637.9	1030	BT_18	5080	34.6	36.0	36.1	36.1	36.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_203	POR	4.5	446757.2	4811584.2	1073	BT_18	5124	34.4	35.9	35.9	35.9	35.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_204	POR	4.5	446757.8	4811496	1147	BT_18	5199	34.2	35.7	35.8	35.8	35.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_205	POR	4.5	446759.9	4811450.2	1128	BT_5	5237	34.1	35.6	35.7	35.7	35.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_206	POR	4.5	446761.2	4811538.9	1109	BT_18	5160	34.3	35.8	35.8	35.8	35.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_207	POR	4.5	446770.7	4810107.1	731	BT_6	6419	35.3	36.8	36.8	36.8	36.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_208	POR	4.5	446770.7	4811500	1137	BT_18	5189	34.2	35.7	35.7	35.7	35.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_209	POR	4.5	446771.1	4811465.1	1146	BT_5	5218	34.1	35.6	35.7	35.7	35.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_210	POR	4.5	446778.8	4821262.5	713	BT_7	5974	35.1	36.5	36.6	36.6	36.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_211	POR	4.5	446779.8	4821304.1	740	BT_7	6010	34.7	36.2	36.2	36.2	36.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_212	POR	4.5	446802.9	4811488.1	1132	BT_18	5182	34.1	35.6	35.7	35.7	35.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_213	POR	4.5	446814.9	4811679.9	961	BT_18	5012	34.7	36.2	36.2	36.2	36.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_214	POR	4.5	446821.4	4811641.5	990	BT_18	5042	34.6	36.0	36.1	36.1	36.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_215	POR	4.5	446825	4811467.1	1140	BT_18	5189	34.1	35.5	35.6	35.6	35.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_216	POR	4.5	446870.9	4809720.7	793	BT_6	6732	34.1	35.6	35.6	35.6	35.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_217	POR	4.5	446895	4809336.8	951	Z_1	7079	33.1	34.7	34.6	34.6	34.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_218	POR	4.5	446959.3	4810489	1044	BT_5	5993	33.4	34.9	34.9	34.9	34.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_219	POR	4.5	446964.1	4809340.4	968	Z_1	7051	32.7	34.3	34.2	34.2	34.2	40.0	43.0	45.0	49.0	51.0	C

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_POR_220	POR	4.5	447005.3	4808850.1	524	Z_1	7497	34.9	36.5	36.5	36.5	36.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_221	POR	4.5	447007.4	4808444.9	271	Z_1	7881	40.2	41.8	42.0	42.0	42.0	40.0	43.0	45.0	49.0	51.0	NC[3]
B_POR_222	POR	4.5	447034.4	4809421	1038	BT_6	6951	32.4	33.9	33.9	33.9	33.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_223	POR	4.5	447061.5	4810636.2	1129	BT_5	5817	32.8	34.3	34.3	34.3	34.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_224	POR	4.5	447100.1	4810072.1	1037	BT_6	6320	32.5	34.0	34.1	34.1	34.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_225	POR	4.5	447140.2	4810031.4	1068	BT_6	6343	32.3	33.8	33.8	33.8	33.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_226	POR	4.5	447212.5	4809388.9	1097	Z_1	6920	31.4	33.0	32.9	32.9	32.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_227	POR	4.5	447240.1	4808839.3	666	Z_1	7434	32.9	34.5	34.5	34.5	34.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_228	POR	4.5	447325.5	4808496.5	593	Z_1	7737	33.4	35.1	35.0	35.0	35.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_229	POR	4.5	447355.1	4808256.8	630	Z_1	7960	32.7	34.4	34.3	34.3	34.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_230	POR	4.5	447388.4	4821836.8	1508	BT_19	6263	30.2	31.7	31.8	31.8	31.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_231	POR	4.5	447424.1	4808272.5	694	Z_1	7927	31.9	33.5	33.4	33.4	33.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_232	POR	4.5	447504	4821062.3	871	BT_19	5496	34.7	36.2	36.2	36.2	36.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_233	POR	4.5	447505.7	4821041.2	858	BT_19	5476	34.8	36.3	36.3	36.3	36.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_234	POR	4.5	447564.6	4811744.9	772	BT_18	4599	35.4	36.8	36.9	36.9	36.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_235	POR	4.5	447569.7	4811761.4	758	BT_18	4582	35.5	37.0	37.0	37.0	37.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_236	POR	4.5	447606.8	4821804.9	1369	BT_19	6163	30.5	32.0	32.1	32.1	32.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_237	POR	4.5	447701.2	4819705.5	957	BT_20	4170	36.3	37.7	37.8	37.8	37.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_238	POR	4.5	447721.7	4820142.6	679	BT_19	4561	37.9	39.4	39.4	39.4	39.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_239	POR	4.5	447726.1	4819317.7	1228	BT_20	3811	35.8	37.2	37.3	37.3	37.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_240	POR	4.5	447751.3	4819841.4	834	BT_20	4273	36.9	38.3	38.3	38.3	38.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_241	POR	4.5	447794.2	4811705.7	901	BT_18	4545	34.5	35.9	36.0	36.0	36.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_242	POR	4.5	447892.1	4817780.2	1074	BT_11	2432	36.1	37.5	37.6	37.6	37.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_243	POR	4.5	448001.7	4818473.4	1168	BT_22	2937	35.9	37.3	37.4	37.4	37.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_244	POR	4.5	448031.8	4811860.7	930	BT_18	4317	34.6	36.0	36.1	36.1	36.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_245	POR	4.5	448050.2	4817857.9	1243	BT_11	2395	36.1	37.4	37.5	37.5	37.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_246	POR	4.5	448051.3	4817945.6	1255	BT_38	2465	36.1	37.4	37.5	37.5	37.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_247	POR	4.5	448070.6	4811932	915	BT_18	4237	34.8	36.2	36.3	36.3	36.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_248	POR	4.5	448079.4	4811594.7	1156	BT_18	4554	33.4	34.8	34.9	34.9	34.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_249	POR	4.5	448111.7	4811602.6	1171	BT_18	4536	33.4	34.8	34.9	34.9	34.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_250	POR	4.5	448114.6	4815594.8	911	BT_14	1398	38.2	39.4	39.4	39.4	39.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_251	POR	4.5	448135.9	4821460.9	878	BT_19	5690	33.7	35.2	35.2	35.2	35.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_252	POR	4.5	448161.5	4821424.8	840	BT_19	5648	34.1	35.6	35.6	35.6	35.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_253	POR	4.5	448162	4817660.4	1181	BT_38	2170	36.3	37.6	37.7	37.7	37.7	40.0	43.0	45.0	49.0	51.0	C

[3] *This receptor is more than 1500 metres away from the nearest turbine associated with the Bluewater Wind Energy Centre and is therefore not considered further in this noise assessment.*

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_POR_254	POR	4.5	448177.8	4816266.9	796	BT_24	1337	38.3	39.5	39.6	39.6	39.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_255	POR	4.5	448254.2	4821506.5	919	BT_19	5708	33.3	34.8	34.9	34.9	34.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_256	POR	4.5	448274.3	4814914.7	906	BT_25	1570	38.2	39.5	39.5	39.5	39.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_257	POR	4.5	448295.6	4815995.8	724	BT_24	1178	38.8	40.0	40.0	40.0	40.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_258	POR	4.5	448302.9	4816064.2	696	BT_24	1176	38.9	40.0	40.1	40.1	40.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_259	POR	4.5	448312	4815825.4	786	BT_24	1164	38.7	39.8	39.9	39.9	39.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_260	POR	4.5	448403.4	4815707.9	787	BT_24	1091	38.9	40.0	40.1	40.1	40.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_261	POR	4.5	448430.4	4814471	821	BT_25	1793	38.7	40.0	40.1	40.1	40.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_262	POR	4.5	448438.1	4814388.1	853	BT_25	1856	38.7	40.0	40.1	40.1	40.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_263	POR	4.5	448441.6	4814359.3	852	BT_26	1878	38.7	40.0	40.1	40.1	40.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_264	POR	4.5	448464.2	4814973.3	728	BT_25	1389	38.9	40.1	40.2	40.2	40.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_265	POR	4.5	448465.2	4814069.7	835	BT_26	2115	38.6	40.0	40.0	40.0	40.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_266	POR	4.5	448476.7	4813613.3	905	BT_16	2522	37.9	39.3	39.3	39.3	39.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_267	POR	4.5	448503.6	4812739.1	1170	BT_17	3335	35.8	37.2	37.3	37.3	37.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_268	POR	4.5	448503.9	4821445	898	BT_19	5599	33.6	35.1	35.1	35.1	35.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_269	POR	4.5	448643.8	4811638.7	962	BT_40	4371	34.1	35.6	35.6	35.6	35.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_270	POR	4.5	448654	4811732	993	BT_40	4277	34.2	35.6	35.7	35.7	35.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_271	POR	4.5	448726.1	4813150.7	957	BT_27	2878	37.0	38.3	38.4	38.4	38.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_272	POR	4.5	448728.7	4813022	1050	BT_27	3002	36.6	37.9	38.0	38.0	38.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_273	POR	4.5	448793.3	4812839.4	1162	BT_27	3164	36.1	37.5	37.6	37.6	37.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_274	POR	4.5	448800.7	4812430.6	1285	BT_30	3563	35.1	36.5	36.6	36.6	36.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_275	POR	4.5	448804.9	4811756.8	876	BT_40	4226	34.8	36.2	36.3	36.3	36.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_276	POR	4.5	448827.1	4811729.3	842	BT_40	4250	34.9	36.3	36.4	36.4	36.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_277	POR	4.5	448851.3	4810775.2	841	BT_40	5192	33.5	35.0	35.1	35.1	35.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_278	POR	4.5	448854.3	4812387.2	1242	BT_30	3596	35.1	36.5	36.6	36.6	36.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_279	POR	4.5	448886.2	4810399.8	1083	BT_40	5561	31.5	33.1	33.1	33.1	33.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_280	POR	4.5	448894.7	4809038.5	2247	Z_1	6916	26.2	27.9	27.9	27.9	27.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_281	POR	4.5	448949	4810029.2	1370	BT_40	5924	29.9	31.5	31.5	31.5	31.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_282	POR	4.5	449049.7	4809544.9	1790	BT_40	6399	28.0	29.6	29.6	29.6	29.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_283	POR	4.5	449056.4	4821110.9	975	BT_19	5197	33.8	35.3	35.4	35.4	35.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_284	POR	4.5	449137.2	4808373.8	2396	Z_1	7564	23.9	25.7	25.6	25.6	25.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_285	POR	4.5	449141.1	4821226.9	1109	BT_19	5307	32.6	34.1	34.2	34.2	34.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_286	POR	4.5	449147.5	4821371.4	1203	BT_19	5451	31.7	33.2	33.3	33.3	33.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_287	POR	4.5	449148.9	4808725.2	2430	Z_1	7212	24.9	26.6	26.6	26.6	26.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_288	POR	4.5	449169.2	4808350	2429	Z_1	7586	23.8	25.6	25.5	25.5	25.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_289	POR	4.5	449195	4808397.1	2454	Z_1	7538	23.9	25.6	25.6	25.6	25.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_290	POR	4.5	449214.5	4808353.7	2474	Z_1	7581	23.8	25.5	25.5	25.5	25.5	40.0	43.0	45.0	49.0	51.0	C

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_POR_291	POR	4.5	449247	4808452.2	2507	Z_1	7481	24.0	25.7	25.7	25.7	25.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_292	POR	4.5	449248.6	4809312.7	1977	BT_40	6621	27.1	28.8	28.8	28.8	28.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_293	POR	4.5	449282.6	4809046.6	2234	BT_31	6886	26.0	27.7	27.7	27.7	27.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_294	POR	4.5	449283.6	4808498.9	2545	Z_1	7434	24.1	25.8	25.8	25.8	25.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_295	POR	4.5	449288	4808464.3	2548	Z_1	7468	24.0	25.7	25.7	25.7	25.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_296	POR	4.5	449296.2	4808397.7	2555	Z_1	7535	23.8	25.5	25.5	25.5	25.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_297	POR	4.5	449311.6	4808834.2	2396	BT_31	7098	25.2	26.9	26.9	26.9	26.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_298	POR	4.5	449328.9	4808253.8	2592	Z_1	7678	23.2	25.0	24.9	24.9	24.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_299	POR	4.5	449331.4	4808209.8	2597	Z_1	7722	23.1	24.9	24.8	24.8	24.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_300	POR	4.5	449364.7	4808453.6	2624	Z_1	7477	23.9	25.6	25.6	25.6	25.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_301	POR	4.5	449372.9	4811920	670	BT_40	4011	36.9	38.3	38.4	38.4	38.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_302	POR	4.5	449374.1	4808277.7	2636	Z_1	7653	23.2	25.0	24.9	24.9	24.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_303	POR	4.5	449375.4	4808380.7	2634	Z_1	7550	23.5	25.2	25.2	25.2	25.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_305	POR	4.5	449376.6	4808254.4	2640	Z_1	7676	23.2	24.9	24.9	24.9	24.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_304	POR	4.5	449376.6	4808318.5	2637	Z_1	7612	23.3	25.1	25.0	25.0	25.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_306	POR	4.5	449379.1	4808298.4	2640	Z_1	7632	23.3	25.0	25.0	25.0	25.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_307	POR	4.5	449379.8	4808238.7	2644	Z_1	7692	23.1	24.9	24.8	24.8	24.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_308	POR	4.5	449384.8	4808219.2	2650	Z_1	7712	23.1	24.8	24.8	24.8	24.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_309	POR	4.5	449386.1	4808326.7	2646	Z_1	7604	23.3	25.1	25.0	25.0	25.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_310	POR	4.5	449390.5	4808444.2	2650	Z_1	7487	23.8	25.6	25.5	25.5	25.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_311	POR	4.5	449391.5	4821175.7	1283	BT_20	5246	31.6	33.1	33.2	33.2	33.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_312	POR	4.5	449423.8	4808373.2	2683	Z_1	7557	23.4	25.2	25.1	25.1	25.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_313	POR	4.5	449575.8	4821054	1357	BT_20	5125	31.2	32.7	32.8	32.8	32.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_314	POR	4.5	449918.1	4819237	832	BT_21	3337	37.4	38.8	38.9	38.9	38.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_315	POR	4.5	449924.7	4819579.1	970	BT_21	3677	36.0	37.4	37.4	37.4	37.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_316	POR	4.5	449927	4820832	1578	BT_20	4923	31.0	32.5	32.6	32.6	32.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_317	POR	4.5	449991.2	4820924.7	1670	BT_20	5021	30.2	31.7	31.8	31.8	31.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_318	POR	4.5	450004.7	4811883.2	775	BT_40	4082	37.2	38.6	38.6	38.6	38.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_319	POR	4.5	450086.1	4817494.7	828	BT_23	1681	38.7	40.0	40.0	40.0	40.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_320	POR	4.5	450179	4809330.5	1592	BT_31	6638	27.4	29.0	29.1	29.1	29.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_321	POR	4.5	450192.1	4817377.1	745	BT_34	1616	38.9	40.2	40.2	40.2	40.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_322	POR	4.5	450194.7	4820836.3	1835	BT_20	4959	30.4	31.8	31.9	31.9	31.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_323	POR	4.5	450230.3	4810099.7	845	BT_31	5880	33.1	34.6	34.6	34.6	34.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_324	POR	4.5	450246.5	4809056.1	1847	BT_31	6918	25.9	27.6	27.6	27.6	27.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_325	POR	4.5	450255.6	4809563	1348	BT_31	6415	28.8	30.3	30.4	30.4	30.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_326	POR	4.5	450268.3	4809635.9	1275	BT_31	6345	29.3	30.8	30.9	30.9	30.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_327	POR	4.5	450273.1	4808343.7	2548	BT_31	7629	22.5	24.2	24.2	24.2	24.2	40.0	43.0	45.0	49.0	51.0	C

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_POR_328	POR	4.5	450274.6	4815091	736	BT_39	1162	38.8	40.0	40.0	40.0	40.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_329	POR	4.5	450280.9	4808371.3	2520	BT_31	7602	22.6	24.3	24.3	24.3	24.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_330	POR	4.5	450315.9	4814708.3	879	BT_28	1485	38.3	39.5	39.6	39.6	39.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_331	POR	4.5	450329	4808377	2509	BT_31	7602	22.6	24.3	24.3	24.3	24.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_332	POR	4.5	450339.3	4808339.3	2546	BT_31	7640	22.4	24.1	24.2	24.2	24.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_333	POR	4.5	450398.5	4809278.8	1605	BT_31	6716	27.0	28.6	28.6	28.6	28.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_334	POR	4.5	450434.8	4820568	1564	BT_32	4737	31.0	32.5	32.6	32.6	32.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_335	POR	4.5	450437.8	4814927.8	954	BT_39	1392	37.8	39.0	39.0	39.0	39.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_336	POR	4.5	450518.7	4808592.6	2283	BT_31	7412	23.0	24.6	24.7	24.7	24.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_337	POR	4.5	450554.6	4816001.9	860	BT_41	1085	38.6	39.6	39.7	39.7	39.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_338	POR	4.5	450560.6	4816114.3	756	BT_41	1105	38.8	39.8	39.9	39.9	39.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_339	POR	4.5	450563.4	4816091.6	775	BT_41	1104	38.7	39.8	39.8	39.8	39.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_340	POR	4.5	450672.9	4820727.6	1696	BT_32	4945	30.1	31.5	31.6	31.6	31.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_341	POR	4.5	450760.9	4820723	1690	BT_32	4963	30.0	31.4	31.5	31.5	31.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_342	POR	4.5	450780.5	4820696.4	1664	BT_32	4943	30.1	31.5	31.6	31.6	31.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_343	POR	4.5	450883.2	4820494.5	1454	BT_33	4778	31.0	32.4	32.5	32.5	32.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_344	POR	4.5	450914.4	4820395.8	1351	BT_33	4693	31.5	32.9	33.0	33.0	33.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_345	POR	4.5	450952.6	4820637.4	1580	BT_33	4935	30.2	31.6	31.7	31.7	31.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_346	POR	4.5	450985.4	4820678.4	1615	BT_33	4984	29.9	31.3	31.4	31.4	31.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_347	POR	4.5	450997.7	4818207.5	830	BT_34	2741	37.5	38.9	38.9	38.9	38.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_348	POR	4.5	451223.8	4820356.3	1276	BT_33	4760	31.3	32.7	32.8	32.8	32.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_349	POR	4.5	451227.1	4820384.5	1305	BT_33	4788	31.1	32.5	32.6	32.6	32.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_350	POR	4.5	451240.5	4820512.5	1433	BT_33	4912	30.3	31.7	31.8	31.8	31.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_351	POR	4.5	451409.1	4820396.5	1330	BT_33	4868	30.6	32.0	32.1	32.1	32.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_352	POR	4.5	451436.5	4820439.4	1377	BT_33	4919	30.3	31.7	31.8	31.8	31.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_353	POR	4.5	451468.2	4820403.3	1347	BT_33	4898	30.4	31.8	31.9	31.9	31.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_354	POR	4.5	451510.6	4816988.2	626	BT_41	2297	38.6	40.0	40.0	40.0	40.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_355	POR	4.5	451530.2	4816962.6	637	BT_41	2303	38.4	39.8	39.8	39.8	39.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_356	POR	4.5	451584	4820134.1	1115	BT_33	4705	31.8	33.2	33.3	33.3	33.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_357	POR	4.5	451607.6	4820208.7	1194	BT_33	4782	31.2	32.6	32.7	32.7	32.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_358	POR	4.5	451636.2	4820151.1	1149	BT_33	4744	31.5	32.9	33.0	33.0	33.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_359	POR	4.5	451641.6	4820329.5	1319	BT_33	4905	30.4	31.8	31.9	31.9	31.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_360	POR	4.5	451693.6	4820295.7	1305	BT_33	4898	30.5	31.9	32.0	32.0	32.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_361	POR	4.5	451703.5	4820251.7	1268	BT_33	4864	30.7	32.1	32.2	32.2	32.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_362	POR	4.5	451735.3	4820234.2	1264	BT_33	4863	30.7	32.1	32.2	32.2	32.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_363	POR	4.5	451739.3	4820280.6	1309	BT_33	4906	30.4	31.8	31.9	31.9	31.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_364	POR	4.5	451765.1	4820270.3	1310	BT_33	4909	30.4	31.8	31.9	31.9	31.9	40.0	43.0	45.0	49.0	51.0	C

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_POR_365	POR	4.5	451765.4	4820231	1274	BT_33	4874	30.6	32.0	32.1	32.1	32.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_366	POR	4.5	451785.7	4820221.9	1275	BT_33	4876	30.6	32.0	32.1	32.1	32.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_367	POR	4.5	451797.6	4820257.2	1312	BT_33	4913	30.3	31.7	31.8	31.8	31.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_368	POR	4.5	451812.3	4820175.1	1245	BT_33	4847	30.7	32.1	32.2	32.2	32.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_369	POR	4.5	451814.1	4820151.6	1226	BT_33	4828	30.8	32.2	32.3	32.3	32.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_370	POR	4.5	451816.6	4820125.1	1204	BT_33	4806	31.0	32.4	32.5	32.5	32.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_371	POR	4.5	451822.2	4820097.3	1183	BT_33	4784	31.1	32.5	32.6	32.6	32.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_372	POR	4.5	451827.8	4820287.4	1352	BT_33	4953	30.1	31.5	31.6	31.6	31.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_373	POR	4.5	451831.7	4819967.1	1078	BT_33	4676	31.8	33.2	33.3	33.3	33.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_374	POR	4.5	451833.7	4820303.7	1369	BT_33	4971	30.0	31.4	31.5	31.5	31.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_375	POR	4.5	451838.5	4820319.1	1385	BT_33	4986	29.9	31.3	31.4	31.4	31.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_376	POR	4.5	451844.8	4820375.9	1439	BT_33	5039	29.1	30.6	30.7	30.7	30.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_377	POR	4.5	451847.6	4820341	1409	BT_33	5010	29.3	30.8	30.9	30.9	30.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_378	POR	4.5	451851.6	4820192.9	1280	BT_33	4882	30.5	31.9	32.0	32.0	32.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_380	POR	4.5	451870.6	4820189.4	1287	BT_33	4888	30.4	31.8	31.9	31.9	31.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_379	POR	4.5	451870.6	4820238.2	1329	BT_33	4931	30.2	31.6	31.7	31.7	31.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_381	POR	4.5	451877	4820298.5	1385	BT_33	4987	29.9	31.3	31.4	31.4	31.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_382	POR	4.5	451879.6	4818507.7	874	BT_33	3527	34.5	35.9	36.0	36.0	36.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_383	POR	4.5	451886.1	4820340.2	1426	BT_33	5028	29.1	30.7	30.8	30.8	30.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_384	POR	4.5	451889.3	4820088.2	1211	BT_33	4810	30.9	32.3	32.4	32.4	32.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_385	POR	4.5	451894.4	4820179	1290	BT_33	4891	30.4	31.8	31.9	31.9	31.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_386	POR	4.5	451897.1	4819221.4	693	BT_33	4088	35.4	36.8	36.9	36.9	36.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_387	POR	4.5	451907.9	4820381	1472	BT_33	5074	28.8	30.3	30.4	30.4	30.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_388	POR	4.5	451922.2	4820169.9	1297	BT_33	4897	30.3	31.7	31.8	31.8	31.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_389	POR	4.5	451939.3	4820277.9	1398	BT_33	4999	29.7	31.1	31.2	31.2	31.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_390	POR	4.5	451948.8	4820208.4	1344	BT_33	4944	30.0	31.4	31.5	31.5	31.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_391	POR	4.5	451961.5	4820314	1440	BT_33	5042	29.0	30.5	30.6	30.6	30.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_392	POR	4.5	451964.3	4820158.8	1311	BT_33	4909	30.2	31.6	31.7	31.7	31.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_393	POR	4.5	451996.8	4820199.7	1363	BT_33	4960	29.9	31.3	31.4	31.4	31.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_394	POR	4.5	451997.6	4820142.1	1317	BT_33	4911	30.2	31.6	31.7	31.7	31.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_395	POR	4.5	452035.7	4820238.2	1417	BT_33	5013	29.0	30.6	30.7	30.7	30.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_396	POR	4.5	452044.1	4820112.4	1322	BT_33	4910	30.1	31.5	31.6	31.6	31.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_397	POR	4.5	452051.2	4820174.1	1375	BT_33	4966	29.8	31.2	31.3	31.3	31.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_398	POR	4.5	452061.3	4812364	2030	BT_30	4407	29.5	30.9	31.0	31.0	31.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_399	POR	4.5	452061.9	4820229	1425	BT_33	5019	29.0	30.5	30.6	30.6	30.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_400	POR	4.5	452076.1	4820169.3	1386	BT_33	4975	29.7	31.1	31.2	31.2	31.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_401	POR	4.5	452087.3	4820098.9	1339	BT_33	4921	30.0	31.4	31.5	31.5	31.5	40.0	43.0	45.0	49.0	51.0	C

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_POR_402	POR	4.5	452093.7	4820217.5	1435	BT_33	5026	28.9	30.5	30.6	30.6	30.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_403	POR	4.5	452114.3	4820183.8	1421	BT_33	5008	29.0	30.5	30.6	30.6	30.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_404	POR	4.5	452117.9	4820056.4	1327	BT_33	4902	30.0	31.4	31.5	31.5	31.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_405	POR	4.5	452128.2	4818421.2	1123	BT_33	3642	32.8	34.2	34.3	34.3	34.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_406	POR	4.5	452134.1	4820090.5	1363	BT_33	4939	29.8	31.2	31.3	31.3	31.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_407	POR	4.5	452154.4	4820145.7	1418	BT_33	4997	29.5	30.9	31.0	31.0	31.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_408	POR	4.5	452158.4	4820211.6	1471	BT_33	5055	28.7	30.2	30.3	30.3	30.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_409	POR	4.5	452169.5	4818064.9	1391	BT_33	3440	32.6	33.9	34.0	34.0	34.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_410	POR	4.5	452173	4816186	693	BT_35	2714	37.2	38.6	38.6	38.6	38.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_411	POR	4.5	452178.4	4817945.7	1364	BT_34	3375	32.6	34.0	34.1	34.1	34.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_412	POR	4.5	452188.9	4817337.8	1253	BT_34	3060	33.3	34.7	34.8	34.8	34.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_413	POR	4.5	452194.1	4817966.9	1387	BT_34	3400	32.5	33.9	34.0	34.0	34.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_414	POR	4.5	452210.8	4812207.8	2116	BT_31	4622	28.8	30.2	30.3	30.3	30.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_415	POR	4.5	452223.4	4818521.1	1149	BT_33	3780	32.4	33.7	33.8	33.8	33.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_416	POR	4.5	452231.2	4816587.5	1042	BT_35	2837	34.9	36.2	36.3	36.3	36.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_417	POR	4.5	452256.9	4821062.8	2238	BT_33	5840	24.8	26.5	26.7	26.7	26.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_418	POR	4.5	452350.6	4816784.8	1273	BT_35	3003	33.8	35.1	35.2	35.2	35.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_419	POR	4.5	452362.4	4814564.5	1017	BT_36	3197	33.9	35.2	35.3	35.3	35.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_420	POR	4.5	452409.9	4817373.7	1473	BT_34	3274	32.3	33.7	33.8	33.8	33.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_421	POR	4.5	452416.8	4820056	1545	BT_33	5069	28.1	29.7	29.8	29.8	29.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_422	POR	4.5	452455.6	4816598.3	1186	BT_35	3058	34.0	35.4	35.4	35.4	35.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_423	POR	4.5	452467.6	4815222.4	729	BT_36	3079	37.0	38.4	38.4	38.4	38.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_424	POR	4.5	452471.3	4814580	1074	BT_36	3290	33.6	35.0	35.1	35.1	35.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_425	POR	4.5	452480.7	4817018.5	1540	BT_35	3200	32.7	34.1	34.2	34.2	34.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_426	POR	4.5	452511.9	4815782.5	804	BT_37	3044	37.1	38.5	38.5	38.5	38.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_427	POR	4.5	452536.4	4813655.3	1894	BT_36	3817	30.0	31.4	31.5	31.5	31.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_428	POR	4.5	452596.4	4816249.1	956	BT_37	3141	35.1	36.4	36.5	36.5	36.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_429	POR	4.5	452629.6	4814974.4	910	BT_37	3300	35.3	36.7	36.7	36.7	36.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_430	POR	4.5	452649.3	4819855.7	1627	BT_33	5050	27.7	29.3	29.4	29.4	29.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_431	POR	4.5	452651.9	4815005.4	872	BT_37	3312	35.4	36.8	36.8	36.8	36.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_432	POR	4.5	452658.3	4814985.7	881	BT_37	3324	35.3	36.7	36.7	36.7	36.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_433	POR	4.5	452659	4814988.1	879	BT_37	3324	35.3	36.7	36.7	36.7	36.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_434	POR	4.5	452711.5	4814027.1	1657	BT_36	3758	30.6	32.0	32.1	32.1	32.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_435	POR	4.5	452715.6	4819982.4	1748	BT_33	5191	27.1	28.7	28.8	28.8	28.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_436	POR	4.5	452719.9	4814614.3	1137	BT_37	3505	33.2	34.5	34.6	34.6	34.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_437	POR	4.5	452773.3	4813014.6	2576	BT_36	4405	28.1	29.5	29.7	29.7	29.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_438	POR	4.5	452790.3	4813723	1940	BT_37	3986	29.6	31.0	31.1	31.1	31.1	40.0	43.0	45.0	49.0	51.0	C

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_POR_439	POR	4.5	452861.2	4819809.8	1797	BT_33	5152	26.9	28.5	28.6	28.6	28.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_440	POR	4.5	452868.9	4813286.9	2348	BT_37	4305	28.4	29.8	29.9	29.9	29.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_441	POR	4.5	452907.3	4811683.4	2476	BT_31	5463	25.0	26.7	26.9	26.9	26.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_442	POR	4.5	452913.6	4812768.1	2838	BT_29	4674	27.3	28.7	28.8	28.8	28.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_443	POR	4.5	452952.4	4812307.2	2782	BT_31	5024	25.6	27.4	27.5	27.5	27.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_444	POR	4.5	452974.8	4819923.3	1948	BT_33	5312	26.2	27.8	28.0	28.0	28.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_445	POR	4.5	453003.1	4812413.5	2881	BT_31	4984	26.6	28.1	28.2	28.2	28.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_446	POR	4.5	453039.9	4810916.3	2473	BT_31	6154	23.3	25.1	25.2	25.2	25.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_447	POR	4.5	453064.3	4811798.2	2662	BT_31	5476	24.7	26.4	26.6	26.6	26.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_448	POR	4.5	453081.2	4810614.3	2528	BT_31	6426	22.6	24.4	24.5	24.5	24.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_449	POR	4.5	453111.2	4810005.1	2689	BT_31	6954	20.9	22.6	22.8	22.8	22.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_450	POR	4.5	453147.7	4809659.3	2853	BT_31	7269	19.8	21.6	21.7	21.7	21.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_451	POR	4.5	453190.9	4811419.6	2680	BT_31	5846	23.6	25.4	25.5	25.5	25.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_452	POR	4.5	453228.5	4809336.7	3074	BT_31	7589	19.0	20.8	21.0	21.0	21.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_453	POR	4.5	453249.1	4810969	2684	BT_31	6236	22.8	24.5	24.7	24.7	24.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_454	POR	4.5	453319.4	4810593	2767	BT_31	6580	21.0	22.7	22.9	22.9	22.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_455	POR	4.5	453367.1	4810169.3	2888	BT_31	6954	20.3	22.1	22.3	22.3	22.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_456	POR	4.5	453377.8	4819552.2	2210	BT_33	5327	25.1	26.8	26.9	26.9	26.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_457	POR	4.5	453424.5	4809356.5	3236	BT_31	7671	17.9	19.7	19.8	19.8	19.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_458	POR	4.5	453437.5	4809717.6	3095	BT_31	7371	19.1	20.8	21.0	21.0	21.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_459	POR	4.5	453482.2	4819703.1	2347	BT_33	5506	24.5	26.2	26.4	26.4	26.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_460	POR	4.5	453491.5	4808953.5	3499	BT_31	8052	16.1	17.9	18.0	18.0	18.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_461	POR	4.5	453571.4	4812776.7	2833	BT_37	5172	24.7	26.5	26.7	26.7	26.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_462	POR	4.5	453696.4	4812382.1	3239	BT_37	5517	23.4	25.2	25.3	25.3	25.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_463	POR	4.5	453739.6	4821170.8	3275	BT_33	6759	14.0	15.8	16.0	16.0	16.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_464	POR	4.5	453779.4	4819623.9	2618	BT_33	5675	23.5	25.3	25.4	25.4	25.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_465	POR	4.5	453856.3	4820541.5	3015	BT_33	6363	16.3	18.1	18.3	18.3	18.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_466	POR	4.5	453992.7	4818443.8	2846	BT_33	5173	24.5	26.2	26.4	26.4	26.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_467	POR	4.5	454177.7	4820831.7	3438	BT_33	6795	17.9	19.7	19.8	19.8	19.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_468	POR	4.5	454202.1	4816341.8	1175	BT_37	4748	29.7	31.1	31.2	31.2	31.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_469	POR	4.5	454222.8	4812704.6	3037	BT_37	5743	22.4	24.2	24.4	24.4	24.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_470	POR	4.5	454226.1	4819326.1	3017	BT_33	5843	18.4	20.3	20.4	20.4	20.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_471	POR	4.5	454275.9	4814460.1	1501	BT_37	5024	27.1	28.7	28.8	28.8	28.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_472	POR	4.5	454317.3	4814801	1296	BT_37	4976	28.7	30.1	30.2	30.2	30.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_473	POR	4.5	454328.2	4812455.4	3306	BT_37	5972	21.5	23.4	23.5	23.5	23.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_474	POR	4.5	454381.7	4820756.5	3580	BT_33	6885	17.4	19.3	19.4	19.4	19.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_475	POR	4.5	454391	4816368.6	1342	BT_37	4939	28.5	29.8	29.9	29.9	29.9	40.0	43.0	45.0	49.0	51.0	C

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_POR_476	POR	4.5	454392.7	4816105	1211	BT_37	4924	29.3	30.6	30.7	30.7	30.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_477	POR	4.5	454554.8	4812807.9	3060	BT_37	5966	21.3	23.1	23.2	23.2	23.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_478	POR	4.5	454602.9	4811464.6	4079	BT_31	6803	18.3	20.1	20.3	20.3	20.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_479	POR	4.5	454642.1	4812511.9	3366	BT_37	6198	19.9	21.8	21.9	21.9	21.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_480	POR	4.5	454651	4819312.5	3440	BT_33	6186	20.8	22.7	22.8	22.8	22.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_481	POR	4.5	454867.6	4819398.3	3662	BT_33	6414	19.8	21.6	21.8	21.8	21.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_482	POR	4.5	455060.1	4818575.4	3463	BT_37	6183	20.8	22.6	22.8	22.8	22.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_483	POR	4.5	455132.8	4818599.7	3522	BT_37	6259	20.6	22.4	22.6	22.6	22.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_484	POR	4.5	455134.1	4818597.1	3520	BT_37	6259	20.6	22.4	22.6	22.6	22.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_485	POR	4.5	455138.8	4816880.5	2248	BT_37	5746	23.0	24.7	24.9	24.9	24.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_486	POR	4.5	455273.5	4812629.7	3566	BT_37	6675	17.1	19.0	19.1	19.1	19.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_487	POR	4.5	455327.4	4816173.1	2114	BT_37	5861	22.8	24.4	24.6	24.6	24.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_488	POR	4.5	455348.8	4818945.4	3929	BT_37	6606	19.2	21.1	21.2	21.2	21.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_489	POR	4.5	455425.5	4815703.4	2134	BT_37	5958	22.6	24.2	24.4	24.4	24.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_490	POR	4.5	455427.3	4818739.1	3799	BT_37	6585	19.7	21.6	21.8	21.8	21.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_491	POR	4.5	455434.8	4819093	4100	BT_37	6750	17.6	19.4	19.6	19.6	19.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_492	POR	4.5	455559.8	4814686.8	2441	BT_37	6214	20.6	22.3	22.4	22.4	22.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_493	POR	4.5	455564.3	4815423.1	2277	BT_37	6114	21.6	23.3	23.4	23.4	23.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_495	POR	4.5	455585.7	4818890.7	4013	BT_37	6793	17.4	19.3	19.5	19.5	19.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_494	POR	4.5	455585.7	4818897.8	4019	BT_37	6796	17.4	19.3	19.4	19.4	19.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_496	POR	4.5	455652.6	4814994.2	2434	BT_37	6252	20.6	22.3	22.4	22.4	22.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_497	POR	4.5	455832.4	4820049.3	4714	BT_33	7578	10.7	12.6	12.8	12.8	12.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_498	POR	4.5	455888.7	4820492.6	4879	BT_33	7874	10.3	12.2	12.4	12.4	12.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_499	POR	4.5	455996.4	4819342	4619	BT_37	7363	13.8	15.7	15.9	15.9	15.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_500	POR	4.5	456081	4820126	4973	BT_33	7829	10.1	12.0	12.2	12.2	12.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_501	POR	4.5	456114.5	4820371.5	5063	BT_33	7991	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_502	POR	4.5	456142.6	4819335.9	4701	BT_37	7490	13.5	15.4	15.6	15.6	15.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_503	POR	4.5	456147.4	4817042.1	3199	BT_37	6768	17.8	19.6	19.7	19.7	19.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_504	POR	4.5	456170	4819350.3	4729	BT_37	7521	13.4	15.3	15.5	15.5	15.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_505	POR	4.5	456174.1	4819156.7	4580	BT_37	7439	13.6	15.6	15.7	15.7	15.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_506	POR	4.5	456179.2	4818529.5	4115	BT_37	7194	14.4	16.3	16.4	16.4	16.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_507	POR	4.5	456185.8	4818054.5	3796	BT_37	7042	13.4	15.2	15.4	15.4	15.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_508	POR	4.5	456186.8	4816995.2	3213	BT_37	6799	17.7	19.5	19.7	19.7	19.7	40.0	43.0	45.0	49.0	51.0	C
B_POR_509	POR	4.5	456199.2	4814938	2979	BT_37	6801	18.5	20.2	20.4	20.4	20.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_510	POR	4.5	456240.7	4817615.7	3572	BT_37	6976	15.6	17.4	17.6	17.6	17.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_511	POR	4.5	456250.9	4817594.9	3569	BT_37	6981	15.6	17.4	17.6	17.6	17.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_512	POR	4.5	456262.6	4818499.2	4152	BT_37	7261	12.3	14.2	14.3	14.3	14.3	40.0	43.0	45.0	49.0	51.0	C

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_POR_513	POR	4.5	456266.1	4814946.1	3042	BT_37	6866	18.2	20.0	20.1	20.1	20.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_514	POR	4.5	456285.9	4816754.8	3208	BT_37	6864	17.7	19.5	19.6	19.6	19.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_515	POR	4.5	456348.9	4818427.2	4165	BT_37	7317	12.3	14.1	14.3	14.3	14.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_516	POR	4.5	456349.8	4814846.3	3146	BT_37	6963	17.9	19.7	19.8	19.8	19.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_517	POR	4.5	456378.4	4818470.2	4216	BT_37	7359	12.1	14.0	14.1	14.1	14.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_518	POR	4.5	456408.6	4818439.1	4217	BT_37	7377	12.1	14.0	14.1	14.1	14.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_519	POR	4.5	456412.6	4814857.9	3205	BT_37	7024	17.7	19.5	19.6	19.6	19.6	40.0	43.0	45.0	49.0	51.0	C
B_POR_520	POR	4.5	456436.5	4814808.1	3240	BT_37	7055	17.6	19.4	19.5	19.5	19.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_521	POR	4.5	456437.5	4814808.2	3241	BT_37	7056	17.6	19.4	19.5	19.5	19.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_522	POR	4.5	456441.6	4816352.1	3237	BT_37	6983	17.6	19.3	19.5	19.5	19.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_523	POR	4.5	456507.9	4814854.4	3298	BT_37	7118	17.4	19.2	19.3	19.3	19.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_524	POR	4.5	456510.2	4817142.5	3569	BT_37	7142	14.2	15.9	16.1	16.1	16.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_525	POR	4.5	456537.3	4815975.9	3266	BT_37	7066	17.4	19.2	19.4	19.4	19.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_526	POR	4.5	456552.2	4815114.3	3294	BT_37	7128	17.4	19.2	19.3	19.3	19.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_527	POR	4.5	456583	4816393.4	3384	BT_37	7127	17.1	18.9	19.1	19.1	19.1	40.0	43.0	45.0	49.0	51.0	C
B_POR_528	POR	4.5	456584.5	4815586.3	3290	BT_37	7121	17.4	19.2	19.3	19.3	19.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_529	POR	4.5	456591.5	4817593.5	3855	BT_37	7312	13.2	15.0	15.2	15.2	15.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_530	POR	4.5	456620.6	4816802.9	3539	BT_37	7202	14.3	16.0	16.2	16.2	16.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_531	POR	4.5	456679	4815973.2	3406	BT_37	7208	16.0	17.8	18.0	18.0	18.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_532	POR	4.5	456683.4	4814973.5	3446	BT_37	7275	15.9	17.7	17.9	17.9	17.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_533	POR	4.5	456713	4815597.9	3419	BT_37	7249	16.0	17.8	18.0	18.0	18.0	40.0	43.0	45.0	49.0	51.0	C
B_POR_534	POR	4.5	456735.7	4814347.5	3661	BT_37	7435	13.9	15.6	15.8	15.8	15.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_535	POR	4.5	456755.8	4816010	3486	BT_37	7285	14.5	16.2	16.4	16.4	16.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_536	POR	4.5	456770.4	4819158	4977	BT_37	7981	10.1	12.0	12.2	12.2	12.2	40.0	43.0	45.0	49.0	51.0	C
B_POR_537	POR	4.5	456877.7	4813581.6	4111	BT_37	7770	12.4	14.3	14.4	14.4	14.4	40.0	43.0	45.0	49.0	51.0	C
B_POR_538	POR	4.5	456892.5	4815192.3	3621	BT_37	7458	14.0	15.8	15.9	15.9	15.9	40.0	43.0	45.0	49.0	51.0	C
B_POR_539	POR	4.5	456919.8	4814349.8	3834	BT_37	7614	13.3	15.1	15.3	15.3	15.3	40.0	43.0	45.0	49.0	51.0	C
B_POR_540	POR	4.5	457044.5	4813991.2	4079	BT_37	7817	12.5	14.4	14.5	14.5	14.5	40.0	43.0	45.0	49.0	51.0	C
B_POR_541	POR	4.5	457416	4819278	5527	BT_37	8621	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_542	POR	4.5	457416.7	4819274.3	5525	BT_37	8620	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_543	POR	4.5	457579	4819294.1	5660	BT_37	8778	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_544	POR	4.5	457602.4	4814958.7	4355	BT_37	8189	11.7	13.6	13.8	13.8	13.8	40.0	43.0	45.0	49.0	51.0	C
B_POR_545	POR	4.5	457915.6	4820306.3	6599	BT_37	9511	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_546	POR	4.5	457919.8	4820665.2	6863	BT_37	9685	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_547	POR	4.5	458027	4819850.5	6364	BT_37	9411	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_548	POR	4.5	458151.4	4817949.7	5398	BT_37	8912	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_549	POR	4.5	458169.9	4820385.8	6835	BT_37	9773	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_POR_550	POR	4.5	458175.8	4817948.4	5419	BT_37	8935	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_551	POR	4.5	458192.1	4818530.9	5710	BT_37	9100	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_552	POR	4.5	458208.6	4818816.3	5876	BT_37	9201	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_553	POR	4.5	458233.4	4817615.9	5336	BT_37	8923	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_554	POR	4.5	458247.3	4819714.4	6442	BT_37	9557	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_555	POR	4.5	458251.7	4818208.5	5604	BT_37	9071	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_556	POR	4.5	458278.2	4817426.5	5310	BT_37	8933	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_557	POR	4.5	458292.6	4817428.9	5324	BT_37	8947	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_558	POR	4.5	458299.1	4817348.4	5303	BT_37	8941	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_559	POR	4.5	458317.8	4817082.4	5239	BT_37	8921	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_560	POR	4.5	458381.8	4818730.4	5976	BT_37	9340	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_561	POR	4.5	458395.7	4819673.8	6531	BT_37	9678	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_562	POR	4.5	458396.8	4816643.9	5209	BT_37	8954	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_563	POR	4.5	458399.3	4817078.3	5316	BT_37	9001	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_564	POR	4.5	458399.6	4818371.2	5811	BT_37	9256	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_565	POR	4.5	458437.9	4818736	6027	BT_37	9395	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_566	POR	4.5	458462.6	4816682.4	5282	BT_37	9023	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_567	POR	4.5	458522.2	4816241.2	5268	BT_37	9056	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_568	POR	4.5	458528.8	4819525.9	6546	BT_37	9745	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_569	POR	4.5	458544.5	4817960.3	5758	BT_37	9297	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_570	POR	4.5	458567.9	4815526.6	5274	BT_37	9105	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_571	POR	4.5	458645.2	4815008.1	5383	BT_37	9220	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_572	POR	4.5	458648.9	4817654.8	5737	BT_37	9338	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_573	POR	4.5	458681.5	4819415.7	6604	BT_37	9847	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_574	POR	4.5	458705.4	4816291.7	5456	BT_37	9241	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_575	POR	4.5	458724.9	4819420.9	6643	BT_37	9890	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_576	POR	4.5	458743.8	4817117	5658	BT_37	9348	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_577	POR	4.5	458749.1	4814598.7	5546	BT_37	9373	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_578	POR	4.5	458753.1	4819439.1	6676	BT_37	9923	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_579	POR	4.5	458755.6	4814223.5	5631	BT_37	9440	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_580	POR	4.5	458764.4	4817104.1	5674	BT_37	9367	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_581	POR	4.5	458772.9	4816692	5587	BT_37	9333	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_582	POR	4.5	458784	4815871.8	5497	BT_37	9313	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_583	POR	4.5	458803.2	4819421.9	6707	BT_37	9964	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_584	POR	4.5	458805.7	4817131.9	5722	BT_37	9411	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_585	POR	4.5	458814.7	4815517.7	5521	BT_37	9352	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_586	POR	4.5	458818.2	4814264.2	5683	BT_37	9494	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_POR_587	POR	4.5	458854	4813837.7	5831	BT_37	9613	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_588	POR	4.5	458865.7	4819471.5	6787	BT_37	10040	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_589	POR	4.5	458975.2	4815040.4	5708	BT_37	9545	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_590	POR	4.5	459025.3	4814735.8	5795	BT_37	9628	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_591	POR	4.5	459084.8	4814055.9	5992	BT_37	9794	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_592	POR	4.5	459105.3	4813887	6057	BT_37	9848	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_593	POR	4.5	459151.2	4819516	7048	BT_37	10323	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_594	POR	4.5	459157.7	4813803	6132	BT_37	9917	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_595	POR	4.5	459484.1	4819433	7283	BT_37	10608	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_596	POR	4.5	459564.4	4817481.1	6548	BT_37	10211	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_597	POR	4.5	459794.7	4819502.2	7584	BT_37	10924	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_598	POR	4.5	459993.9	4819740.6	7878	BT_37	11191	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_599	POR	4.5	460006.2	4819722	7879	BT_37	11196	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_600	POR	4.5	460028.1	4820671.5	8433	BT_37	11572	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_601	POR	4.5	460079.3	4819646.5	7902	BT_37	11240	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_602	POR	4.5	460101.7	4818589.1	7437	BT_37	10958	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_603	POR	4.5	460157.9	4818139.1	7320	BT_37	10912	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_604	POR	4.5	460164.2	4819678.7	7992	BT_37	11331	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_605	POR	4.5	460164.6	4819635.8	7970	BT_37	11317	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_606	POR	4.5	460178.1	4819656.5	7992	BT_37	11337	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_607	POR	4.5	460198.9	4817743.2	7231	BT_37	10880	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_608	POR	4.5	460373.9	4815388.8	7083	BT_37	10916	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_609	POR	4.5	460554.2	4816675	7340	BT_37	11108	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_610	POR	4.5	460561.9	4818638.1	7879	BT_37	11416	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_611	POR	4.5	460566.6	4819917.3	8460	BT_37	11790	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_612	POR	4.5	460639.9	4817409.9	7567	BT_37	11266	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_613	POR	4.5	460658.7	4815723.8	7366	BT_37	11189	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_614	POR	4.5	460665.6	4816195.6	7396	BT_37	11197	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_615	POR	4.5	460688	4816980.6	7523	BT_37	11266	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_616	POR	4.5	460852.2	4815770.2	7560	BT_37	11382	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_617	POR	4.5	460857.9	4816178.2	7586	BT_37	11389	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_618	POR	4.5	460892.4	4814428.1	7688	BT_37	11519	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_619	POR	4.5	460893.4	4814463.7	7683	BT_37	11516	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_620	POR	4.5	460920.1	4814472.6	7708	BT_37	11541	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_621	POR	4.5	460939.6	4816605.6	7712	BT_37	11488	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_622	POR	4.5	460956.8	4814900.1	7694	BT_37	11531	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_623	POR	4.5	460962.2	4814942.3	7696	BT_37	11533	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_POR_624	POR	4.5	460973.6	4814741.5	7727	BT_37	11563	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_POR_625	POR	4.5	461053.9	4815512.4	7760	BT_37	11590	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_PR_1	PR	4.5	444128.3	4818640	2378	BT_1	5991	27.3	28.9	29.1	29.1	29.1	-	-	-	-	-	-
B_PR_2	PR	4.5	444153.1	4818634	2362	BT_1	5966	27.4	29.0	29.2	29.2	29.2	-	-	-	-	-	-
B_PR_3	PR	4.5	445586.1	4820649.6	648	BT_7	6113	35.7	37.1	37.2	37.2	37.2	-	-	-	-	-	-
B_PR_4	PR	4.5	445746	4820274.3	727	BT_7	5723	36.2	37.6	37.7	37.7	37.7	-	-	-	-	-	-
B_PR_5	PR	4.5	445755.4	4819507.5	824	BT_9	5158	36.2	37.6	37.7	37.7	37.7	-	-	-	-	-	-
B_PR_6	PR	4.5	445796.6	4816599.2	539	BT_1	3735	39.6	41.1	41.1	41.1	41.1	-	-	-	-	-	-
B_PR_7	PR	4.5	445851.1	4819063.4	637	BT_9	4788	37.6	39.0	39.1	39.1	39.1	-	-	-	-	-	-
B_PR_8	PR	4.5	445924.2	4818221.1	789	BT_10	4223	36.4	37.8	37.9	37.9	37.9	-	-	-	-	-	-
B_PR_9	PR	4.5	445940.5	4818630.7	655	BT_10	4445	37.9	39.3	39.3	39.3	39.3	-	-	-	-	-	-
B_PR_10	PR	4.5	446046.3	4817447.5	802	BT_11	3746	36.8	38.2	38.3	38.3	38.3	-	-	-	-	-	-
B_PR_11	PR	4.5	446065.5	4817753.5	780	BT_11	3863	36.8	38.2	38.2	38.2	38.2	-	-	-	-	-	-
B_PR_12	PR	4.5	446089.1	4817042.3	824	BT_12	3560	37.5	38.9	39.0	39.0	39.0	-	-	-	-	-	-
B_PR_13	PR	4.5	446312.2	4815333.2	920	BT_14	3215	36.3	37.7	37.8	37.8	37.8	-	-	-	-	-	-
B_PR_14	PR	4.5	446319.2	4813380.9	799	BT_3	4054	36.5	37.9	38.0	38.0	38.0	-	-	-	-	-	-
B_PR_15	PR	4.5	446366.2	4822311.8	1484	BT_7	7097	27.8	29.3	29.5	29.5	29.5	-	-	-	-	-	-
B_PR_16	PR	4.5	446423.3	4814463	765	BT_15	3383	36.5	37.9	37.9	37.9	37.9	-	-	-	-	-	-
B_PR_17	PR	4.5	446441.8	4814491.5	745	BT_15	3354	36.6	38.0	38.1	38.1	38.1	-	-	-	-	-	-
B_PR_18	PR	4.5	446483.7	4814052	847	BT_15	3529	36.3	37.7	37.8	37.8	37.8	-	-	-	-	-	-
B_PR_19	PR	4.5	446512.9	4811421.4	939	BT_5	5393	34.8	36.2	36.3	36.3	36.3	-	-	-	-	-	-
B_PR_20	PR	4.5	446558.6	4811621.4	1085	BT_4	5201	34.8	36.2	36.3	36.3	36.3	-	-	-	-	-	-
B_PR_21	PR	4.5	446655.4	4821760.6	1028	BT_7	6475	31.5	33.0	33.1	33.1	33.1	-	-	-	-	-	-
B_PR_22	PR	4.5	446702.9	4812580	645	BT_18	4346	38.2	39.6	39.6	39.6	39.6	-	-	-	-	-	-
B_PR_23	PR	4.5	446828.2	4821121.6	684	BT_7	5826	35.7	37.1	37.2	37.2	37.2	-	-	-	-	-	-
B_PR_24	PR	4.5	446835.5	4810055	776	BT_6	6440	34.7	36.2	36.2	36.2	36.2	-	-	-	-	-	-
B_PR_25	PR	4.5	446945.4	4821980.9	1362	BT_7	6557	29.6	31.2	31.3	31.3	31.3	-	-	-	-	-	-
B_PR_26	PR	4.5	447075.2	4811477	1041	BT_18	5057	33.8	35.3	35.4	35.4	35.4	-	-	-	-	-	-
B_PR_27	PR	4.5	447478.2	4818153.6	845	BT_11	2986	36.8	38.2	38.3	38.3	38.3	-	-	-	-	-	-
B_PR_28	PR	4.5	447549.7	4818201.2	930	BT_11	2975	36.5	37.9	37.9	37.9	37.9	-	-	-	-	-	-
B_PR_29	PR	4.5	447592.6	4811429.3	1084	BT_18	4877	33.3	34.7	34.8	34.8	34.8	-	-	-	-	-	-
B_PR_30	PR	4.5	447691.8	4819576.5	1051	BT_20	4057	36.1	37.5	37.5	37.5	37.5	-	-	-	-	-	-
B_PR_31	PR	4.5	447692.9	4818501.2	1106	BT_10	3126	35.9	37.3	37.4	37.4	37.4	-	-	-	-	-	-
B_PR_32	PR	4.5	447865.4	4816713.8	917	BT_13	1787	37.6	38.8	38.9	38.9	38.9	-	-	-	-	-	-
B_PR_33	PR	4.5	447885.3	4816775.5	969	BT_13	1797	37.4	38.7	38.8	38.8	38.8	-	-	-	-	-	-
B_PR_34	PR	4.5	447910.9	4818873.1	1209	BT_21	3331	35.7	37.1	37.2	37.2	37.2	-	-	-	-	-	-
B_PR_35	PR	4.5	447934.5	4816764.7	1002	BT_13	1749	37.4	38.6	38.7	38.7	38.7	-	-	-	-	-	-

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_PR_36	PR	4.5	448015.5	4817322.2	1218	BT_11	2014	36.5	37.8	37.9	37.9	37.9	-	-	-	-	-	-
B_PR_37	PR	4.5	448153.2	4816022	852	BT_24	1321	38.3	39.5	39.5	39.5	39.5	-	-	-	-	-	-
B_PR_38	PR	4.5	448167	4817273.8	1264	BT_23	1873	36.6	37.9	38.0	38.0	38.0	-	-	-	-	-	-
B_PR_39	PR	4.5	448221.3	4815247.2	997	BT_14	1425	38.1	39.3	39.4	39.4	39.4	-	-	-	-	-	-
B_PR_40	PR	4.5	448305.6	4816488.8	710	BT_24	1293	38.6	39.7	39.8	39.8	39.8	-	-	-	-	-	-
B_PR_41	PR	4.5	448385.4	4815322	937	BT_25	1245	38.5	39.6	39.7	39.7	39.7	-	-	-	-	-	-
B_PR_42	PR	4.5	448480	4821106.4	574	BT_19	5270	37.6	39.1	39.1	39.1	39.1	-	-	-	-	-	-
B_PR_43	PR	4.5	448512.3	4813158.6	1113	BT_27	2933	36.8	38.2	38.2	38.2	38.2	-	-	-	-	-	-
B_PR_44	PR	4.5	448600	4813787.4	801	BT_27	2313	38.7	40.0	40.1	40.1	40.1	-	-	-	-	-	-
B_PR_45	PR	4.5	448618	4814472.2	656	BT_25	1690	39.8	41.1	41.2	41.2	41.2	-	-	-	-	-	-
B_PR_46	PR	4.5	448649.7	4814485.7	622	BT_25	1662	40.1	41.4	41.4	41.4	41.4	-	-	-	-	-	-
B_PR_47	PR	4.5	448677.6	4813543.2	777	BT_27	2516	38.2	39.6	39.7	39.7	39.7	-	-	-	-	-	-
B_PR_48	PR	4.5	448726.2	4812252.4	1271	BT_40	3753	34.8	36.2	36.3	36.3	36.3	-	-	-	-	-	-
B_PR_49	PR	4.5	449163	4809875.2	1442	BT_40	6063	29.5	31.1	31.1	31.1	31.1	-	-	-	-	-	-
B_PR_50	PR	4.5	449207.9	4809840.1	1465	BT_40	6096	29.3	30.8	30.9	30.9	30.9	-	-	-	-	-	-
B_PR_51	PR	4.5	449705.3	4820096.9	1198	BT_21	4173	34.1	35.5	35.6	35.6	35.6	-	-	-	-	-	-
B_PR_52	PR	4.5	449736.9	4813366.7	439	BT_29	2577	42.6	44.0	44.0	44.0	44.0	-	-	-	-	-	-
B_PR_53	PR	4.5	449771.3	4819651.1	891	BT_21	3733	35.9	37.3	37.4	37.4	37.4	-	-	-	-	-	-
B_PR_54	PR	4.5	449834.5	4819401.6	806	BT_21	3490	36.9	38.3	38.4	38.4	38.4	-	-	-	-	-	-
B_PR_55	PR	4.5	450004.1	4818106.4	715	BT_38	2240	38.4	39.8	39.8	39.8	39.8	-	-	-	-	-	-
B_PR_56	PR	4.5	450024.8	4810445.9	691	BT_31	5512	35.6	37.1	37.1	37.1	37.1	-	-	-	-	-	-
B_PR_57	PR	4.5	450060	4812047.2	647	BT_30	3927	37.7	39.1	39.2	39.2	39.2	-	-	-	-	-	-
B_PR_58	PR	4.5	450104.8	4816996.4	699	BT_23	1240	39.5	40.7	40.7	40.7	40.7	-	-	-	-	-	-
B_PR_59	PR	4.5	450125.5	4811083.3	488	BT_31	4891	39.5	41.0	41.0	41.0	41.0	-	-	-	-	-	-
B_PR_60	PR	4.5	450134.9	4818082.2	839	BT_38	2252	37.9	39.2	39.3	39.3	39.3	-	-	-	-	-	-
B_PR_61	PR	4.5	450145.6	4817040.7	740	BT_23	1299	39.4	40.6	40.6	40.6	40.6	-	-	-	-	-	-
B_PR_62	PR	4.5	450161.8	4816963.3	758	BT_23	1242	39.4	40.6	40.7	40.7	40.7	-	-	-	-	-	-
B_PR_63	PR	4.5	450166	4816899.4	763	BT_41	1192	39.5	40.6	40.7	40.7	40.7	-	-	-	-	-	-
B_PR_64	PR	4.5	450200.2	4816364.3	831	BT_41	848	39.6	40.6	40.6	40.6	40.6	-	-	-	-	-	-
B_PR_65	PR	4.5	450220.1	4817114.2	765	BT_34	1401	39.3	40.6	40.6	40.6	40.6	-	-	-	-	-	-
B_PR_66	PR	4.5	450325.8	4815609.6	764	BT_39	913	39.2	40.2	40.2	40.2	40.2	-	-	-	-	-	-
B_PR_67	PR	4.5	450433.8	4816422.1	604	BT_41	1081	39.6	40.7	40.8	40.8	40.8	-	-	-	-	-	-
B_PR_68	PR	4.5	451822.7	4817878.3	1016	BT_34	3053	34.4	35.8	35.9	35.9	35.9	-	-	-	-	-	-
B_PR_69	PR	4.5	452003.1	4818343.9	1075	BT_33	3498	33.5	34.8	34.9	34.9	34.9	-	-	-	-	-	-
B_PR_70	PR	4.5	452027.7	4819238.1	824	BT_33	4180	34.0	35.4	35.4	35.4	35.4	-	-	-	-	-	-
B_PR_71	PR	4.5	452202.9	4815739.5	535	BT_35	2738	39.8	41.2	41.3	41.3	41.3	-	-	-	-	-	-
B_PR_72	PR	4.5	452359.4	4815372.8	603	BT_36	2941	38.3	39.7	39.8	39.8	39.8	-	-	-	-	-	-

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_PR_73	PR	4.5	452658.8	4815428.4	657	BT_37	3227	37.2	38.6	38.7	38.7	38.7	-	-	-	-	-	-
B_PR_74	PR	4.5	454664.2	4811215.2	4111	BT_31	7014	17.1	19.0	19.2	19.2	19.2	-	-	-	-	-	-
B_PR_75	PR	4.5	458143.3	4820765.6	7088	BT_37	9929	-	-	-	-	-	-	-	-	-	-	-
B_PR_76	PR	4.5	458150.5	4820740.6	7075	BT_37	9923	-	-	-	-	-	-	-	-	-	-	-
B_VPO_1	VPO	4.5	443085	4808911.5	3145	BT_6	9489	20.6	22.3	22.3	22.3	22.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_2	VPO	4.5	443104.8	4809080.2	3080	BT_6	9352	20.9	22.6	22.6	22.6	22.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_3	VPO	4.5	443127	4810699.3	2796	BT_4	8223	23.1	24.8	24.9	24.9	24.9	40.0	43.0	45.0	49.0	51.0	C
B_VPO_4	VPO	4.5	443132.7	4818679.3	3011	BT_1	6909	23.6	25.4	25.6	25.6	25.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_5	VPO	4.5	443141.2	4809351.4	2988	BT_6	9130	21.3	23.1	23.1	23.1	23.1	40.0	43.0	45.0	49.0	51.0	C
B_VPO_6	VPO	4.5	443174.3	4809711.9	2917	BT_6	8850	21.9	23.6	23.6	23.6	23.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_7	VPO	4.5	443244.7	4811523.5	2385	BT_4	7628	24.4	26.1	26.2	26.2	26.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_8	VPO	4.5	443248.7	4811662.9	2354	BT_4	7545	24.6	26.3	26.4	26.4	26.4	40.0	43.0	45.0	49.0	51.0	C
B_VPO_9	VPO	4.5	443299.9	4812265.1	2277	BT_4	7178	25.1	26.8	26.9	26.9	26.9	40.0	43.0	45.0	49.0	51.0	C
B_VPO_10	VPO	4.5	443309.9	4811183.6	2423	BT_4	7778	24.1	25.8	25.9	25.9	25.9	40.0	43.0	45.0	49.0	51.0	C
B_VPO_11	VPO	4.5	443372.7	4813058.9	2193	BT_3	6741	25.6	27.3	27.5	27.5	27.5	40.0	43.0	45.0	49.0	51.0	C
B_VPO_12	VPO	4.5	443389.2	4813234.2	2179	BT_3	6653	25.8	27.5	27.6	27.6	27.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_13	VPO	4.5	443434.7	4812259	2142	BT_4	7065	25.8	27.4	27.6	27.6	27.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_14	VPO	4.5	443457.3	4820664.4	2755	BT_7	7654	23.1	24.8	25.0	25.0	25.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_15	VPO	4.5	443458.7	4813984.9	2278	BT_3	6320	25.9	27.6	27.8	27.8	27.8	40.0	43.0	45.0	49.0	51.0	C
B_VPO_17	VPO	4.5	443459.9	4820783.5	2748	BT_7	7726	23.0	24.7	24.9	24.9	24.9	40.0	43.0	45.0	49.0	51.0	C
B_VPO_16	VPO	4.5	443459.9	4820902.5	2748	BT_7	7801	22.4	24.1	24.3	24.3	24.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_18	VPO	4.5	443461.5	4821473	2818	BT_7	8176	21.1	22.8	23.0	23.0	23.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_19	VPO	4.5	443464.1	4821986.3	2974	BT_7	8530	20.3	22.1	22.2	22.2	22.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_20	VPO	4.5	443475.2	4814160.2	2335	BT_3	6252	25.8	27.5	27.7	27.7	27.7	40.0	43.0	45.0	49.0	51.0	C
B_VPO_21	VPO	4.5	443486.1	4811939.2	2086	BT_4	7194	25.8	27.5	27.6	27.6	27.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_22	VPO	4.5	443491.8	4814279.3	2376	BT_3	6203	25.9	27.6	27.7	27.7	27.7	40.0	43.0	45.0	49.0	51.0	C
B_VPO_23	VPO	4.5	443511.9	4812869.1	2068	BT_3	6700	26.2	27.9	28.0	28.0	28.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_24	VPO	4.5	443515.5	4813119	2049	BT_3	6586	26.3	27.9	28.1	28.1	28.1	40.0	43.0	45.0	49.0	51.0	C
B_VPO_25	VPO	4.5	443526.6	4813221.9	2041	BT_3	6533	26.3	28.0	28.1	28.1	28.1	40.0	43.0	45.0	49.0	51.0	C
B_VPO_26	VPO	4.5	443545	4813383.6	2037	BT_3	6451	26.3	28.0	28.1	28.1	28.1	40.0	43.0	45.0	49.0	51.0	C
B_VPO_27	VPO	4.5	443578	4813677.6	2064	BT_3	6309	26.3	28.0	28.1	28.1	28.1	40.0	43.0	45.0	49.0	51.0	C
B_VPO_28	VPO	4.5	443603.8	4814074.6	2182	BT_3	6154	26.3	28.0	28.2	28.2	28.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_29	VPO	4.5	443633.2	4814273	2251	BT_3	6069	26.3	28.0	28.2	28.2	28.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_30	VPO	4.5	443651.5	4814493.6	2357	BT_3	5995	26.4	28.1	28.3	28.3	28.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_31	VPO	4.5	443721.4	4816952.9	1591	BT_1	5840	28.4	30.0	30.1	30.1	30.1	40.0	43.0	45.0	49.0	51.0	C
B_VPO_32	VPO	4.5	443732.4	4815140.4	1899	BT_2	5793	27.5	29.2	29.3	29.3	29.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_33	VPO	4.5	443761.8	4815519	1694	BT_2	5724	28.2	29.8	30.0	30.0	30.0	40.0	43.0	45.0	49.0	51.0	C

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_VPO_34	VPO	4.5	443772.8	4815735.8	1611	BT_2	5702	28.7	30.3	30.4	30.4	30.4	40.0	43.0	45.0	49.0	51.0	C
B_VPO_35	VPO	4.5	443784.3	4817442.4	1726	BT_1	5885	27.8	29.4	29.6	29.6	29.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_36	VPO	4.5	443857.4	4816382.7	1412	BT_1	5632	29.8	31.3	31.4	31.4	31.4	40.0	43.0	45.0	49.0	51.0	C
B_VPO_37	VPO	4.5	443886.8	4816787	1394	BT_1	5650	29.7	31.2	31.3	31.3	31.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_38	VPO	4.5	443923.2	4818887.7	2573	BT_9	6287	26.3	28.0	28.1	28.1	28.1	40.0	43.0	45.0	49.0	51.0	C
B_VPO_39	VPO	4.5	443930.9	4817158.2	1463	BT_1	5675	29.2	30.8	30.9	30.9	30.9	40.0	43.0	45.0	49.0	51.0	C
B_VPO_40	VPO	4.5	443974.8	4822078.9	2555	BT_7	8247	22.0	23.7	23.9	23.9	23.9	40.0	43.0	45.0	49.0	51.0	C
B_VPO_41	VPO	4.5	443980.7	4820622.2	2237	BT_7	7222	25.1	26.8	26.9	26.9	26.9	40.0	43.0	45.0	49.0	51.0	C
B_VPO_42	VPO	4.5	444023	4820110.7	2301	BT_7	6867	25.8	27.5	27.6	27.6	27.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_43	VPO	4.5	444055.5	4818957.1	2435	BT_9	6204	26.7	28.4	28.5	28.5	28.5	40.0	43.0	45.0	49.0	51.0	C
B_VPO_44	VPO	4.5	444113	4820934.4	2096	BT_7	7332	25.2	26.9	27.0	27.0	27.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_45	VPO	4.5	444139.5	4821214.9	2102	BT_7	7507	24.7	26.3	26.5	26.5	26.5	40.0	43.0	45.0	49.0	51.0	C
B_VPO_46	VPO	4.5	444160.6	4821447.7	2136	BT_7	7658	24.2	25.8	26.0	26.0	26.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_47	VPO	4.5	444224.9	4820045	2134	BT_7	6668	26.7	28.4	28.5	28.5	28.5	40.0	43.0	45.0	49.0	51.0	C
B_VPO_48	VPO	4.5	444265.3	4820892.3	1943	BT_7	7192	25.9	27.6	27.7	27.7	27.7	40.0	43.0	45.0	49.0	51.0	C
B_VPO_50	VPO	4.5	444308.2	4822457.2	2497	BT_7	8322	22.1	23.8	23.9	23.9	23.9	40.0	43.0	45.0	49.0	51.0	C
B_VPO_49	VPO	4.5	444308.2	4822563.1	2567	BT_7	8406	21.8	23.5	23.7	23.7	23.7	40.0	43.0	45.0	49.0	51.0	C
B_VPO_51	VPO	4.5	444310.9	4822058.4	2256	BT_7	8012	23.1	24.8	25.0	25.0	25.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_52	VPO	4.5	444496.9	4817555.1	1264	BT_1	5233	31.1	32.7	32.8	32.8	32.8	40.0	43.0	45.0	49.0	51.0	C
B_VPO_53	VPO	4.5	444514.5	4823232.5	2934	BT_7	8826	20.1	21.9	22.0	22.0	22.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_54	VPO	4.5	444517.2	4823322.4	3006	BT_7	8899	19.9	21.7	21.8	21.8	21.8	40.0	43.0	45.0	49.0	51.0	C
B_VPO_55	VPO	4.5	444604.5	4822793.3	2530	BT_7	8414	21.9	23.6	23.8	23.8	23.8	40.0	43.0	45.0	49.0	51.0	C
B_VPO_56	VPO	4.5	444628.3	4823232.5	2870	BT_7	8762	20.3	22.1	22.3	22.3	22.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_57	VPO	4.5	444633.6	4823322.4	2942	BT_7	8835	20.1	21.9	22.0	22.0	22.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_58	VPO	4.5	444675	4822049.9	1955	BT_7	7775	24.6	26.3	26.4	26.4	26.4	40.0	43.0	45.0	49.0	51.0	C
B_VPO_59	VPO	4.5	444679.1	4811296.1	1174	BT_4	6667	31.4	32.9	33.0	33.0	33.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_60	VPO	4.5	444695.6	4811183.6	1239	BT_4	6733	31.3	32.8	32.8	32.8	32.8	40.0	43.0	45.0	49.0	51.0	C
B_VPO_61	VPO	4.5	444726.2	4823232.5	2817	BT_7	8709	20.9	22.7	22.8	22.8	22.8	40.0	43.0	45.0	49.0	51.0	C
B_VPO_62	VPO	4.5	444791.4	4822608.7	2269	BT_7	8155	23.0	24.7	24.8	24.8	24.8	40.0	43.0	45.0	49.0	51.0	C
B_VPO_63	VPO	4.5	444802.9	4817561.4	1112	BT_1	4945	32.6	34.1	34.2	34.2	34.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_64	VPO	4.5	444829.5	4822047.8	1835	BT_7	7679	25.2	26.8	26.9	26.9	26.9	40.0	43.0	45.0	49.0	51.0	C
B_VPO_65	VPO	4.5	444840	4823327.7	2842	BT_7	8728	20.5	22.2	22.4	22.4	22.4	40.0	43.0	45.0	49.0	51.0	C
B_VPO_66	VPO	4.5	444861	4809973.2	1233	BT_6	7533	30.9	32.4	32.4	32.4	32.4	40.0	43.0	45.0	49.0	51.0	C
B_VPO_67	VPO	4.5	444952.3	4810188.7	1098	BT_5	7307	32.0	33.5	33.5	33.5	33.5	40.0	43.0	45.0	49.0	51.0	C
B_VPO_68	VPO	4.5	444953.6	4809381.2	1226	BT_6	7956	29.9	31.3	31.3	31.3	31.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_69	VPO	4.5	444993.3	4809159.6	1293	BT_6	8118	29.2	30.7	30.7	30.7	30.7	40.0	43.0	45.0	49.0	51.0	C
B_VPO_70	VPO	4.5	444996.7	4821450.9	1358	BT_7	7106	28.3	29.9	30.0	30.0	30.0	40.0	43.0	45.0	49.0	51.0	C

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_VPO_71	VPO	4.5	445001.8	4809909.9	1088	BT_6	7498	31.8	33.3	33.3	33.3	33.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_72	VPO	4.5	445004	4821715.5	1490	BT_7	7309	27.3	28.9	29.0	29.0	29.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_73	VPO	4.5	445055.5	4813405.7	585	BT_3	5087	36.4	37.9	37.9	37.9	37.9	40.0	43.0	45.0	49.0	51.0	C
B_VPO_74	VPO	4.5	445056.4	4809700.9	1042	BT_6	7635	31.7	33.2	33.2	33.2	33.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_75	VPO	4.5	445078.8	4809594.3	1040	BT_6	7710	31.5	33.0	33.0	33.0	33.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_76	VPO	4.5	445080.7	4809434.3	1089	BT_6	7841	30.9	32.4	32.4	32.4	32.4	40.0	43.0	45.0	49.0	51.0	C
B_VPO_77	VPO	4.5	445114.3	4821439.9	1248	BT_7	7024	29.2	30.7	30.8	30.8	30.8	40.0	43.0	45.0	49.0	51.0	C
B_VPO_78	VPO	4.5	445115.7	4811384.4	815	BT_4	6296	34.5	36.0	36.0	36.0	36.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_79	VPO	4.5	445118	4821642	1355	BT_7	7182	28.2	29.7	29.8	29.8	29.8	40.0	43.0	45.0	49.0	51.0	C
B_VPO_80	VPO	4.5	445132.7	4811215.2	953	BT_4	6408	34.1	35.6	35.6	35.6	35.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_81	VPO	4.5	445237	4823336.8	2682	BT_7	8532	21.4	23.2	23.4	23.4	23.4	40.0	43.0	45.0	49.0	51.0	C
B_VPO_82	VPO	4.5	445310.1	4807921.1	1508	Z_1	9026	25.9	27.5	27.3	27.3	27.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_83	VPO	4.5	445337.3	4811255.4	826	BT_5	6241	35.5	36.9	37.0	37.0	37.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_84	VPO	4.5	445352	4822543.1	1909	BT_7	7791	24.7	26.3	26.4	26.4	26.4	40.0	43.0	45.0	49.0	51.0	C
B_VPO_85	VPO	4.5	445367.9	4821289.2	954	BT_7	6750	31.6	33.1	33.2	33.2	33.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_86	VPO	4.5	445617.8	4822083.1	1379	BT_7	7260	28.0	29.5	29.6	29.6	29.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_87	VPO	4.5	445632.5	4821917.7	1225	BT_7	7112	29.1	30.6	30.7	30.7	30.7	40.0	43.0	45.0	49.0	51.0	C
B_VPO_88	VPO	4.5	445657.6	4823328.9	2553	BT_7	8324	22.0	23.8	23.9	23.9	23.9	40.0	43.0	45.0	49.0	51.0	C
B_VPO_89	VPO	4.5	445686.6	4823991.8	3198	BT_7	8906	19.6	21.4	21.6	21.6	21.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_90	VPO	4.5	445720.7	4818650.3	874	BT_10	4633	35.8	37.2	37.3	37.3	37.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_91	VPO	4.5	445777.3	4815423.4	887	BT_2	3729	35.5	36.9	37.0	37.0	37.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_92	VPO	4.5	445808.5	4822725.6	1931	BT_7	7720	24.9	26.5	26.6	26.6	26.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_93	VPO	4.5	445818.9	4823795.5	2985	BT_7	8672	20.3	22.1	22.3	22.3	22.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_94	VPO	4.5	445820	4822186	1404	BT_7	7243	27.9	29.5	29.6	29.6	29.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_95	VPO	4.5	445821	4823674.9	2865	BT_7	8562	20.7	22.5	22.6	22.6	22.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_96	VPO	4.5	445823.2	4823736.2	2926	BT_7	8616	20.5	22.3	22.5	22.5	22.5	40.0	43.0	45.0	49.0	51.0	C
B_VPO_97	VPO	4.5	445823.4	4823420.9	2613	BT_7	8332	21.9	23.6	23.8	23.8	23.8	40.0	43.0	45.0	49.0	51.0	C
B_VPO_98	VPO	4.5	445823.5	4811473.7	642	BT_4	5759	37.2	38.7	38.7	38.7	38.7	40.0	43.0	45.0	49.0	51.0	C
B_VPO_99	VPO	4.5	445934.5	4809259.9	607	BT_6	7550	36.0	37.4	37.4	37.4	37.4	40.0	43.0	45.0	49.0	51.0	C
B_VPO_100	VPO	4.5	445986.1	4816082.6	674	BT_2	3489	38.0	39.4	39.5	39.5	39.5	40.0	43.0	45.0	49.0	51.0	C
B_VPO_102	VPO	4.5	446544	4812593.4	804	BT_18	4439	37.1	38.5	38.6	38.6	38.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_101	VPO	4.5	446544	4812755.1	842	BT_18	4319	37.2	38.7	38.7	38.7	38.7	40.0	43.0	45.0	49.0	51.0	C
B_VPO_103	VPO	4.5	446584.4	4812354.5	768	BT_18	4596	36.9	38.3	38.4	38.4	38.4	40.0	43.0	45.0	49.0	51.0	C
B_VPO_104	VPO	4.5	446646	4811464.1	1058	BT_5	5285	34.4	35.9	35.9	35.9	35.9	40.0	43.0	45.0	49.0	51.0	C
B_VPO_105	VPO	4.5	446702.4	4811522.7	1139	BT_5	5205	34.4	35.8	35.9	35.9	35.9	40.0	43.0	45.0	49.0	51.0	C
B_VPO_106	VPO	4.5	446805	4811593.7	1039	BT_18	5091	34.4	35.9	35.9	35.9	35.9	40.0	43.0	45.0	49.0	51.0	C
B_VPO_107	VPO	4.5	446906.6	4809792	820	BT_6	6653	33.9	35.4	35.4	35.4	35.4	40.0	43.0	45.0	49.0	51.0	C

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_VPO_108	VPO	4.5	447065.9	4810377.2	1112	BT_6	6052	32.8	34.3	34.3	34.3	34.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_109	VPO	4.5	447091.6	4810267	1088	BT_6	6143	32.6	34.1	34.1	34.1	34.1	40.0	43.0	45.0	49.0	51.0	C
B_VPO_110	VPO	4.5	447199.2	4808169.8	512	Z_1	8086	34.5	36.2	36.2	36.2	36.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_111	VPO	4.5	447246.8	4808968.9	763	Z_1	7308	32.1	33.8	33.7	33.7	33.7	40.0	43.0	45.0	49.0	51.0	C
B_VPO_112	VPO	4.5	447312.1	4809682.6	1235	BT_6	6610	31.1	32.6	32.6	32.6	32.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_113	VPO	4.5	447415.1	4811678.3	809	BT_18	4723	35.1	36.5	36.6	36.6	36.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_114	VPO	4.5	447437.1	4821395.8	1135	BT_19	5832	32.7	34.2	34.2	34.2	34.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_115	VPO	4.5	447439	4821202.7	1005	BT_19	5651	33.7	35.2	35.3	35.3	35.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_116	VPO	4.5	447511.9	4820457.6	734	BT_19	4933	36.9	38.3	38.4	38.4	38.4	40.0	43.0	45.0	49.0	51.0	C
B_VPO_117	VPO	4.5	447687	4819433.2	1160	BT_20	3931	35.9	37.3	37.4	37.4	37.4	40.0	43.0	45.0	49.0	51.0	C
B_VPO_118	VPO	4.5	447812	4811715	902	BT_18	4530	34.5	35.9	36.0	36.0	36.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_119	VPO	4.5	447874.5	4819668.4	860	BT_20	4065	36.6	38.0	38.0	38.0	38.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_120	VPO	4.5	448003.1	4819311.9	1097	BT_20	3687	36.0	37.4	37.5	37.5	37.5	40.0	43.0	45.0	49.0	51.0	C
B_VPO_121	VPO	4.5	448080	4818219.8	1138	BT_22	2679	36.1	37.4	37.5	37.5	37.5	40.0	43.0	45.0	49.0	51.0	C
B_VPO_122	VPO	4.5	448095	4816544.4	927	BT_24	1507	37.7	39.0	39.0	39.0	39.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_123	VPO	4.5	448102.3	4818051.3	1180	BT_22	2524	36.1	37.5	37.6	37.6	37.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_124	VPO	4.5	448175.4	4821549.3	963	BT_19	5767	32.7	34.2	34.3	34.3	34.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_125	VPO	4.5	448410.4	4821468.3	898	BT_19	5639	33.6	35.0	35.1	35.1	35.1	40.0	43.0	45.0	49.0	51.0	C
B_VPO_126	VPO	4.5	448874.2	4810891.8	758	BT_40	5074	34.4	35.8	35.9	35.9	35.9	40.0	43.0	45.0	49.0	51.0	C
B_VPO_127	VPO	4.5	448925	4810232.7	1201	BT_40	5724	30.8	32.3	32.4	32.4	32.4	40.0	43.0	45.0	49.0	51.0	C
B_VPO_128	VPO	4.5	449076.3	4810697	731	BT_40	5248	34.6	36.0	36.1	36.1	36.1	40.0	43.0	45.0	49.0	51.0	C
B_VPO_129	VPO	4.5	449088.3	4809429.2	1893	BT_40	6512	27.5	29.1	29.2	29.2	29.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_130	VPO	4.5	449141.2	4809037.7	2265	BT_40	6901	26.0	27.7	27.7	27.7	27.7	40.0	43.0	45.0	49.0	51.0	C
B_VPO_131	VPO	4.5	449157.2	4810292.7	1046	BT_40	5646	31.8	33.3	33.4	33.4	33.4	40.0	43.0	45.0	49.0	51.0	C
B_VPO_132	VPO	4.5	449236.5	4809683.2	1613	BT_40	6251	28.6	30.2	30.3	30.3	30.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_133	VPO	4.5	449257.7	4809466.3	1823	BT_40	6468	27.7	29.3	29.3	29.3	29.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_134	VPO	4.5	449300	4809191.1	2091	BT_40	6741	26.6	28.3	28.3	28.3	28.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_135	VPO	4.5	449315.2	4820995.2	1110	BT_20	5067	32.8	34.3	34.4	34.4	34.4	40.0	43.0	45.0	49.0	51.0	C
B_VPO_136	VPO	4.5	449686.4	4811851	602	BT_40	4085	37.8	39.2	39.2	39.2	39.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_137	VPO	4.5	449701	4821015.9	1445	BT_20	5091	30.8	32.4	32.5	32.5	32.5	40.0	43.0	45.0	49.0	51.0	C
B_VPO_138	VPO	4.5	449807.7	4811873.1	664	BT_40	4071	37.5	38.9	39.0	39.0	39.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_139	VPO	4.5	449973.1	4819120.8	764	BT_32	3230	37.8	39.2	39.2	39.2	39.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_140	VPO	4.5	450002.4	4810261.9	834	BT_31	5693	33.9	35.3	35.4	35.4	35.4	40.0	43.0	45.0	49.0	51.0	C
B_VPO_141	VPO	4.5	450025	4810024.2	1009	BT_31	5932	32.0	33.4	33.5	33.5	33.5	40.0	43.0	45.0	49.0	51.0	C
B_VPO_142	VPO	4.5	450105.4	4818279.1	863	BT_38	2433	37.9	39.2	39.3	39.3	39.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_143	VPO	4.5	450183.1	4810412.1	601	BT_31	5564	36.3	37.8	37.8	37.8	37.8	40.0	43.0	45.0	49.0	51.0	C
B_VPO_144	VPO	4.5	450227.2	4817528.9	725	BT_34	1768	38.6	39.9	40.0	40.0	40.0	40.0	43.0	45.0	49.0	51.0	C

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_VPO_145	VPO	4.5	450313.5	4808461.7	2427	BT_31	7516	22.9	24.6	24.6	24.6	24.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_146	VPO	4.5	450322	4809067	1824	BT_31	6916	26.0	27.6	27.6	27.6	27.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_147	VPO	4.5	450336.9	4815349.9	740	BT_39	1042	38.9	40.0	40.0	40.0	40.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_148	VPO	4.5	450381.3	4808664.9	2218	BT_31	7322	23.8	25.4	25.5	25.5	25.5	40.0	43.0	45.0	49.0	51.0	C
B_VPO_149	VPO	4.5	450572.1	4814978.7	1054	BT_39	1455	37.4	38.6	38.6	38.6	38.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_150	VPO	4.5	450634.6	4814817	1117	BT_28	1610	37.1	38.3	38.4	38.4	38.4	40.0	43.0	45.0	49.0	51.0	C
B_VPO_151	VPO	4.5	450697.1	4814217.9	748	BT_28	2106	37.3	38.7	38.7	38.7	38.7	40.0	43.0	45.0	49.0	51.0	C
B_VPO_152	VPO	4.5	450748.6	4813593.1	772	BT_28	2663	37.6	39.0	39.1	39.1	39.1	40.0	43.0	45.0	49.0	51.0	C
B_VPO_153	VPO	4.5	450752.2	4811976	999	BT_30	4157	34.8	36.2	36.3	36.3	36.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_154	VPO	4.5	450811	4813188.8	718	BT_29	3051	37.4	38.8	38.8	38.8	38.8	40.0	43.0	45.0	49.0	51.0	C
B_VPO_155	VPO	4.5	450855.1	4812791.9	803	BT_30	3430	36.6	38.0	38.1	38.1	38.1	40.0	43.0	45.0	49.0	51.0	C
B_VPO_156	VPO	4.5	450932.3	4812174.4	1017	BT_30	4030	34.3	35.7	35.8	35.8	35.8	40.0	43.0	45.0	49.0	51.0	C
B_VPO_157	VPO	4.5	451096.2	4812033.9	1230	BT_30	4222	33.2	34.6	34.7	34.7	34.7	40.0	43.0	45.0	49.0	51.0	C
B_VPO_158	VPO	4.5	451190.1	4820536.5	1457	BT_33	4916	30.4	31.8	31.9	31.9	31.9	40.0	43.0	45.0	49.0	51.0	C
B_VPO_159	VPO	4.5	451204.3	4814063.5	1188	BT_28	2547	34.8	36.1	36.2	36.2	36.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_160	VPO	4.5	451321.4	4820311.8	1236	BT_33	4756	31.4	32.8	32.9	32.9	32.9	40.0	43.0	45.0	49.0	51.0	C
B_VPO_161	VPO	4.5	451358.5	4809217.6	1837	BT_31	6973	24.6	26.1	26.2	26.2	26.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_162	VPO	4.5	451450.5	4814089.3	1327	BT_36	2703	34.1	35.4	35.5	35.5	35.5	40.0	43.0	45.0	49.0	51.0	C
B_VPO_163	VPO	4.5	451513	4814298.8	1109	BT_36	2613	34.5	35.8	35.9	35.9	35.9	40.0	43.0	45.0	49.0	51.0	C
B_VPO_164	VPO	4.5	451515.5	4820396.8	1350	BT_33	4912	30.3	31.7	31.8	31.8	31.8	40.0	43.0	45.0	49.0	51.0	C
B_VPO_165	VPO	4.5	451611.3	4812235.6	1620	BT_30	4270	31.1	32.5	32.6	32.6	32.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_166	VPO	4.5	451616.6	4812152.7	1650	BT_30	4344	30.9	32.4	32.5	32.5	32.5	40.0	43.0	45.0	49.0	51.0	C
B_VPO_167	VPO	4.5	451693.1	4812273.7	1688	BT_30	4279	30.7	32.1	32.3	32.3	32.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_168	VPO	4.5	451722.5	4812123	1701	BT_31	4423	30.5	31.9	32.0	32.0	32.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_169	VPO	4.5	451814.4	4812284.7	1803	BT_30	4334	30.3	31.7	31.8	31.8	31.8	40.0	43.0	45.0	49.0	51.0	C
B_VPO_170	VPO	4.5	451815.1	4820121.1	1200	BT_33	4802	31.0	32.4	32.5	32.5	32.5	40.0	43.0	45.0	49.0	51.0	C
B_VPO_171	VPO	4.5	451827.4	4820049.3	1144	BT_33	4745	31.4	32.8	32.8	32.8	32.8	40.0	43.0	45.0	49.0	51.0	C
B_VPO_172	VPO	4.5	451847.5	4819418.5	714	BT_33	4221	35.2	36.6	36.6	36.6	36.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_173	VPO	4.5	451856.7	4820495.9	1553	BT_33	5151	28.3	29.9	30.0	30.0	30.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_174	VPO	4.5	451871.8	4808206.9	2970	BT_31	8088	18.8	20.5	20.7	20.7	20.7	40.0	43.0	45.0	49.0	51.0	C
B_VPO_175	VPO	4.5	452007.5	4820376.8	1518	BT_33	5119	28.4	30.0	30.1	30.1	30.1	40.0	43.0	45.0	49.0	51.0	C
B_VPO_176	VPO	4.5	452028.7	4820464.1	1604	BT_33	5205	27.9	29.5	29.6	29.6	29.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_177	VPO	4.5	452062.3	4808259.8	3012	BT_31	8096	18.6	20.4	20.5	20.5	20.5	40.0	43.0	45.0	49.0	51.0	C
B_VPO_178	VPO	4.5	452065.8	4820559.4	1705	BT_33	5306	27.4	29.0	29.1	29.1	29.1	40.0	43.0	45.0	49.0	51.0	C
B_VPO_179	VPO	4.5	452083.7	4817717.1	1195	BT_34	3165	33.3	34.6	34.7	34.7	34.7	40.0	43.0	45.0	49.0	51.0	C
B_VPO_180	VPO	4.5	452089.6	4820641.4	1788	BT_33	5390	26.9	28.6	28.7	28.7	28.7	40.0	43.0	45.0	49.0	51.0	C
B_VPO_181	VPO	4.5	452109	4817528.9	1181	BT_34	3084	33.5	34.8	34.9	34.9	34.9	40.0	43.0	45.0	49.0	51.0	C

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_VPO_182	VPO	4.5	452121.3	4820741.9	1891	BT_33	5493	26.4	28.0	28.1	28.1	28.1	40.0	43.0	45.0	49.0	51.0	C
B_VPO_183	VPO	4.5	452150.4	4820826.6	1979	BT_33	5581	26.0	27.6	27.7	27.7	27.7	40.0	43.0	45.0	49.0	51.0	C
B_VPO_184	VPO	4.5	452187.5	4820921.9	2081	BT_33	5683	25.5	27.2	27.3	27.3	27.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_185	VPO	4.5	452193.7	4817006.6	1294	BT_41	2927	33.9	35.2	35.3	35.3	35.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_186	VPO	4.5	452203.6	4820047.9	1381	BT_33	4942	29.7	31.1	31.2	31.2	31.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_187	VPO	4.5	452238.5	4820155.9	1482	BT_33	5051	28.6	30.1	30.2	30.2	30.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_188	VPO	4.5	452245.1	4816476.3	959	BT_35	2827	35.3	36.6	36.7	36.7	36.7	40.0	43.0	45.0	49.0	51.0	C
B_VPO_189	VPO	4.5	452282.7	4821144.1	2322	BT_33	5923	24.4	26.1	26.2	26.2	26.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_190	VPO	4.5	452288.5	4817533	1360	BT_34	3241	32.6	33.9	34.0	34.0	34.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_191	VPO	4.5	452317.9	4812380.3	2282	BT_30	4550	28.6	30.0	30.2	30.2	30.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_192	VPO	4.5	452461.3	4814883.1	863	BT_36	3168	35.4	36.7	36.8	36.8	36.8	40.0	43.0	45.0	49.0	51.0	C
B_VPO_193	VPO	4.5	452546.1	4814790.5	986	BT_36	3279	34.5	35.9	35.9	35.9	35.9	40.0	43.0	45.0	49.0	51.0	C
B_VPO_194	VPO	4.5	452555.3	4814017.3	1581	BT_36	3629	31.0	32.4	32.5	32.5	32.5	40.0	43.0	45.0	49.0	51.0	C
B_VPO_195	VPO	4.5	452634.7	4813445.8	2125	BT_36	4022	29.3	30.7	30.8	30.8	30.8	40.0	43.0	45.0	49.0	51.0	C
B_VPO_196	VPO	4.5	452733.2	4814475.2	1253	BT_37	3572	32.5	33.8	33.9	33.9	33.9	40.0	43.0	45.0	49.0	51.0	C
B_VPO_197	VPO	4.5	452751.6	4818661.4	1589	BT_33	4268	29.7	31.1	31.2	31.2	31.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_198	VPO	4.5	452881.4	4812325.9	2732	BT_31	4962	26.8	28.2	28.4	28.4	28.4	40.0	43.0	45.0	49.0	51.0	C
B_VPO_199	VPO	4.5	452882.5	4812270.9	2704	BT_31	5003	25.8	27.5	27.7	27.7	27.7	40.0	43.0	45.0	49.0	51.0	C
B_VPO_200	VPO	4.5	452887.6	4813460.8	2174	BT_37	4215	28.7	30.1	30.3	30.3	30.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_201	VPO	4.5	452946.4	4818477.6	1829	BT_33	4309	29.0	30.3	30.4	30.4	30.4	40.0	43.0	45.0	49.0	51.0	C
B_VPO_202	VPO	4.5	452982.7	4811264.8	2447	BT_31	5839	24.1	25.8	26.0	26.0	26.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_203	VPO	4.5	453042	4811167.4	2492	BT_31	5953	23.8	25.5	25.7	25.7	25.7	40.0	43.0	45.0	49.0	51.0	C
B_VPO_204	VPO	4.5	453104.4	4810487.5	2567	BT_31	6544	21.9	23.6	23.8	23.8	23.8	40.0	43.0	45.0	49.0	51.0	C
B_VPO_205	VPO	4.5	453221.1	4809429.2	3022	BT_31	7505	19.2	21.0	21.1	21.1	21.1	40.0	43.0	45.0	49.0	51.0	C
B_VPO_206	VPO	4.5	453508.7	4819521.4	2332	BT_33	5403	24.7	26.4	26.5	26.5	26.5	40.0	43.0	45.0	49.0	51.0	C
B_VPO_207	VPO	4.5	453797.6	4814039.8	1636	BT_37	4721	28.1	29.5	29.6	29.6	29.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_208	VPO	4.5	453810.9	4821212.9	3357	BT_33	6836	13.7	15.6	15.7	15.7	15.7	40.0	43.0	45.0	49.0	51.0	C
B_VPO_209	VPO	4.5	453829.3	4813822.8	1852	BT_37	4841	27.4	28.8	28.9	28.9	28.9	40.0	43.0	45.0	49.0	51.0	C
B_VPO_210	VPO	4.5	453830	4820499.6	2972	BT_33	6315	16.4	18.3	18.4	18.4	18.4	40.0	43.0	45.0	49.0	51.0	C
B_VPO_211	VPO	4.5	453851.2	4821024.5	3273	BT_33	6718	14.0	15.8	16.0	16.0	16.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_212	VPO	4.5	453909.3	4819396.4	2709	BT_33	5631	23.4	25.2	25.3	25.3	25.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_213	VPO	4.5	454002.8	4816561.9	1198	BT_37	4575	29.9	31.2	31.3	31.3	31.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_214	VPO	4.5	454107.8	4817959.4	2500	BT_37	5061	24.1	25.8	25.9	25.9	25.9	40.0	43.0	45.0	49.0	51.0	C
B_VPO_215	VPO	4.5	454134.6	4817831.1	2388	BT_37	5036	24.7	26.4	26.5	26.5	26.5	40.0	43.0	45.0	49.0	51.0	C
B_VPO_216	VPO	4.5	454155.6	4817400.7	2000	BT_37	4909	26.7	28.0	28.2	28.2	28.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_217	VPO	4.5	454284.2	4816764.9	1532	BT_37	4885	27.8	29.1	29.2	29.2	29.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_218	VPO	4.5	454355.8	4818192.4	2805	BT_37	5383	22.4	24.2	24.3	24.3	24.3	40.0	43.0	45.0	49.0	51.0	C

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_VPO_219	VPO	4.5	454363.8	4812711.6	3076	BT_37	5856	21.5	23.3	23.5	23.5	23.5	40.0	43.0	45.0	49.0	51.0	C
B_VPO_220	VPO	4.5	454372.4	4815960	1138	BT_37	4901	29.8	31.1	31.2	31.2	31.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_221	VPO	4.5	454384.9	4814484.3	1558	BT_37	5122	26.5	28.1	28.2	28.2	28.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_222	VPO	4.5	454405.5	4815761.5	1124	BT_37	4937	29.8	31.2	31.3	31.3	31.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_223	VPO	4.5	454475.3	4815342.6	1208	BT_37	5038	28.6	30.1	30.2	30.2	30.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_224	VPO	4.5	454508.4	4814754.5	1477	BT_37	5172	26.6	28.1	28.2	28.2	28.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_225	VPO	4.5	454587.6	4808716.6	4563	BT_31	8844	11.1	13.0	13.2	13.2	13.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_226	VPO	4.5	454625.4	4817740.2	2524	BT_37	5462	23.1	24.8	25.0	25.0	25.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_227	VPO	4.5	454655.4	4817466.9	2314	BT_37	5407	23.5	25.2	25.4	25.4	25.4	40.0	43.0	45.0	49.0	51.0	C
B_VPO_228	VPO	4.5	454887	4817279.4	2318	BT_37	5581	23.2	24.9	25.0	25.0	25.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_229	VPO	4.5	455022.9	4819039.9	3804	BT_33	6363	20.3	22.2	22.3	22.3	22.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_230	VPO	4.5	455142	4810937.4	4575	BT_31	7555	11.1	13.0	13.2	13.2	13.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_231	VPO	4.5	455156.4	4816726.3	2179	BT_37	5740	23.2	24.9	25.0	25.0	25.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_232	VPO	4.5	455200.2	4810508.7	4648	BT_31	7887	10.9	12.8	13.0	13.0	13.0	40.0	43.0	45.0	49.0	51.0	C
B_VPO_233	VPO	4.5	455240.4	4816896.8	2341	BT_37	5849	22.6	24.3	24.5	24.5	24.5	40.0	43.0	45.0	49.0	51.0	C
B_VPO_234	VPO	4.5	455242.6	4810307.7	4710	BT_31	8057	10.7	12.7	12.8	12.8	12.8	40.0	43.0	45.0	49.0	51.0	C
B_VPO_235	VPO	4.5	455276.5	4818418.8	3449	BT_37	6316	20.5	22.3	22.5	22.5	22.5	40.0	43.0	45.0	49.0	51.0	C
B_VPO_236	VPO	4.5	455284.9	4809932	4811	BT_31	8353	10.5	12.4	12.6	12.6	12.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_237	VPO	4.5	455327.2	4809688.5	4906	BT_31	8559	10.2	12.2	12.3	12.3	12.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_238	VPO	4.5	455516.3	4808692.8	5409	BT_31	9430	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_VPO_239	VPO	4.5	455575.6	4815325.7	2298	BT_37	6134	21.5	23.2	23.3	23.3	23.3	40.0	43.0	45.0	49.0	51.0	C
B_VPO_240	VPO	4.5	455596.3	4815136.7	2348	BT_37	6176	21.3	23.0	23.1	23.1	23.1	40.0	43.0	45.0	49.0	51.0	C
B_VPO_241	VPO	4.5	456092.5	4818940.7	4361	BT_37	7273	14.1	16.0	16.1	16.1	16.1	40.0	43.0	45.0	49.0	51.0	C
B_VPO_242	VPO	4.5	456290.9	4818940.7	4491	BT_37	7454	11.3	13.2	13.4	13.4	13.4	40.0	43.0	45.0	49.0	51.0	C
B_VPO_243	VPO	4.5	456316.7	4817095.7	3374	BT_37	6944	17.2	19.0	19.2	19.2	19.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_244	VPO	4.5	456357.1	4818315.9	4096	BT_37	7287	12.5	14.3	14.5	14.5	14.5	40.0	43.0	45.0	49.0	51.0	C
B_VPO_245	VPO	4.5	456408.5	4817878.5	3861	BT_37	7205	13.2	15.0	15.2	15.2	15.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_246	VPO	4.5	456449	4817724.2	3806	BT_37	7204	13.4	15.2	15.4	15.4	15.4	40.0	43.0	45.0	49.0	51.0	C
B_VPO_247	VPO	4.5	456585	4816934	3553	BT_37	7184	14.2	16.0	16.2	16.2	16.2	40.0	43.0	45.0	49.0	51.0	C
B_VPO_248	VPO	4.5	456778.8	4815456.3	3488	BT_37	7323	14.5	16.2	16.4	16.4	16.4	40.0	43.0	45.0	49.0	51.0	C
B_VPO_249	VPO	4.5	457514.8	4819124.5	5501	BT_37	8654	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_VPO_250	VPO	4.5	457607.3	4819186.7	5612	BT_37	8763	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_VPO_251	VPO	4.5	457768.4	4817290.5	4785	BT_37	8408	10.6	12.5	12.6	12.6	12.6	40.0	43.0	45.0	49.0	51.0	C
B_VPO_252	VPO	4.5	457789.1	4819203.6	5764	BT_37	8939	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_VPO_253	VPO	4.5	457808.8	4817058.9	4746	BT_37	8413	10.7	12.6	12.7	12.7	12.7	40.0	43.0	45.0	49.0	51.0	C
B_VPO_254	VPO	4.5	458007.3	4815258	4725	BT_37	8562	10.7	12.6	12.8	12.8	12.8	40.0	43.0	45.0	49.0	51.0	C
B_VPO_255	VPO	4.5	458064.8	4819221.1	5992	BT_37	9202	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_VPO_256	VPO	4.5	458170.2	4819245.3	6091	BT_37	9309	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_VPO_257	VPO	4.5	458181.9	4819196.1	6071	BT_37	9303	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_VPO_258	VPO	4.5	458182.7	4819114.9	6023	BT_37	9275	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_VPO_259	VPO	4.5	458202.1	4818665	5789	BT_37	9149	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_VPO_260	VPO	4.5	458213.1	4818859.8	5903	BT_37	9219	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_VPO_261	VPO	4.5	458301.3	4817775.6	5461	BT_37	9021	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_VPO_262	VPO	4.5	458410.9	4818280.9	5778	BT_37	9243	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_VPO_263	VPO	4.5	458468.8	4817784.9	5619	BT_37	9187	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_VPO_264	VPO	4.5	458481.4	4816540.7	5273	BT_37	9031	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_VPO_265	VPO	4.5	458490.3	4817877.4	5675	BT_37	9227	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_VPO_266	VPO	4.5	458492.6	4817738.9	5623	BT_37	9201	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_VPO_267	VPO	4.5	458573.3	4815974.7	5293	BT_37	9102	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_VPO_268	VPO	4.5	458688.7	4819329.3	6561	BT_37	9824	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_VPO_269	VPO	4.5	458776.8	4817038.8	5669	BT_37	9371	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_VPO_270	VPO	4.5	460491.5	4817246.5	7384	BT_37	11098	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_VPO_271	VPO	4.5	460518	4817082.5	7375	BT_37	11106	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_VPO_272	VPO	4.5	460592.1	4816563.9	7362	BT_37	11139	-	-	-	-	-	40.0	43.0	45.0	49.0	51.0	-
B_VPR_1	VPR	4.5	444042.6	4818399.2	2216	BT_1	5964	27.2	28.9	29.0	29.0	29.0	-	-	-	-	-	-
B_VPR_2	VPR	4.5	445544.3	4819933	978	BT_8	5608	34.3	35.7	35.8	35.8	35.8	-	-	-	-	-	-
B_VPR_3	VPR	4.5	445562.7	4821259.8	771	BT_7	6609	33.5	35.0	35.1	35.1	35.1	-	-	-	-	-	-
B_VPR_4	VPR	4.5	445636.2	4811465.1	602	BT_4	5886	37.4	38.8	38.9	38.9	38.9	-	-	-	-	-	-
B_VPR_5	VPR	4.5	445647.2	4819245.7	846	BT_9	5061	35.4	36.9	36.9	36.9	36.9	-	-	-	-	-	-
B_VPR_6	VPR	4.5	445933.9	4818536.4	669	BT_10	4394	37.5	38.9	39.0	39.0	39.0	-	-	-	-	-	-
B_VPR_7	VPR	4.5	445985.4	4818110.1	805	BT_10	4111	36.5	37.9	38.0	38.0	38.0	-	-	-	-	-	-
B_VPR_8	VPR	4.5	446017.2	4820043.3	527	BT_8	5371	38.7	40.1	40.2	40.2	40.2	-	-	-	-	-	-
B_VPR_9	VPR	4.5	446058.9	4816257.7	743	BT_2	3428	38.1	39.5	39.6	39.6	39.6	-	-	-	-	-	-
B_VPR_10	VPR	4.5	446216.9	4816459.8	743	BT_12	3297	38.3	39.7	39.7	39.7	39.7	-	-	-	-	-	-
B_VPR_11	VPR	4.5	446250	4816327.5	785	BT_12	3246	38.2	39.6	39.6	39.6	39.6	-	-	-	-	-	-
B_VPR_12	VPR	4.5	446319.8	4821414.2	589	BT_7	6325	36.1	37.5	37.6	37.6	37.6	-	-	-	-	-	-
B_VPR_13	VPR	4.5	446376.1	4815893.9	795	BT_13	3096	37.4	38.8	38.8	38.8	38.8	-	-	-	-	-	-
B_VPR_14	VPR	4.5	446455.8	4814868.4	807	BT_15	3197	36.8	38.2	38.2	38.2	38.2	-	-	-	-	-	-
B_VPR_15	VPR	4.5	446492.5	4813192.5	892	BT_17	4046	36.9	38.3	38.3	38.3	38.3	-	-	-	-	-	-
B_VPR_16	VPR	4.5	446654.3	4813471.8	860	BT_17	3739	37.0	38.4	38.5	38.5	38.5	-	-	-	-	-	-
B_VPR_17	VPR	4.5	446753.5	4812799.2	630	BT_17	4146	38.8	40.2	40.2	40.2	40.2	-	-	-	-	-	-
B_VPR_18	VPR	4.5	446793.9	4815809.3	496	BT_13	2680	40.4	41.8	41.9	41.9	41.9	-	-	-	-	-	-
B_VPR_19	VPR	4.5	446881.8	4811599.4	997	BT_18	5046	34.4	35.9	35.9	35.9	35.9	-	-	-	-	-	-
B_VPR_20	VPR	4.5	447548.9	4820269.4	756	BT_19	4746	37.1	38.5	38.6	38.6	38.6	-	-	-	-	-	-

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_VPR_21	VPR	4.5	447624.5	4821568.5	1155	BT_19	5933	32.0	33.5	33.5	33.5	33.5	-	-	-	-	-	-
B_VPR_22	VPR	4.5	447752.4	4820456.9	499	BT_19	4842	39.4	40.8	40.9	40.9	40.9	-	-	-	-	-	-
B_VPR_23	VPR	4.5	447778.6	4820012.4	724	BT_20	4419	37.8	39.2	39.2	39.2	39.2	-	-	-	-	-	-
B_VPR_24	VPR	4.5	447786.3	4818782.6	1200	BT_10	3313	35.7	37.1	37.2	37.2	37.2	-	-	-	-	-	-
B_VPR_25	VPR	4.5	447977.4	4817569.8	1146	BT_11	2218	36.2	37.5	37.6	37.6	37.6	-	-	-	-	-	-
B_VPR_26	VPR	4.5	447982.8	4818615.1	1184	BT_22	3070	35.9	37.3	37.3	37.3	37.3	-	-	-	-	-	-
B_VPR_27	VPR	4.5	448168.5	4815717.4	966	BT_24	1320	38.2	39.4	39.4	39.4	39.4	-	-	-	-	-	-
B_VPR_28	VPR	4.5	448260.4	4816967	1012	BT_24	1594	37.3	38.5	38.6	38.6	38.6	-	-	-	-	-	-
B_VPR_29	VPR	4.5	448363.3	4815930.6	689	BT_24	1108	39.1	40.2	40.3	40.3	40.3	-	-	-	-	-	-
B_VPR_30	VPR	4.5	448411.1	4815555.7	894	BT_24	1125	38.8	39.8	39.9	39.9	39.9	-	-	-	-	-	-
B_VPR_31	VPR	4.5	448484.6	4813898.2	867	BT_26	2259	38.4	39.8	39.9	39.9	39.9	-	-	-	-	-	-
B_VPR_32	VPR	4.5	448572.5	4814768.5	604	BT_25	1469	39.7	40.9	41.0	41.0	41.0	-	-	-	-	-	-
B_VPR_33	VPR	4.5	448616.9	4814019.4	701	BT_26	2093	39.2	40.6	40.6	40.6	40.6	-	-	-	-	-	-
B_VPR_34	VPR	4.5	448620.6	4812674.3	1294	BT_18	3365	35.6	37.0	37.1	37.1	37.1	-	-	-	-	-	-
B_VPR_35	VPR	4.5	448925.6	4811913.5	885	BT_40	4054	35.0	36.5	36.5	36.5	36.5	-	-	-	-	-	-
B_VPR_36	VPR	4.5	448936.6	4811737.1	757	BT_40	4227	35.5	36.9	37.0	37.0	37.0	-	-	-	-	-	-
B_VPR_37	VPR	4.5	449458.5	4811814.3	550	BT_40	4116	38.0	39.4	39.4	39.4	39.4	-	-	-	-	-	-
B_VPR_38	VPR	4.5	449546.7	4820903.3	1256	BT_20	4974	32.2	33.6	33.7	33.7	33.7	-	-	-	-	-	-
B_VPR_39	VPR	4.5	449594.5	4811840	574	BT_40	4092	37.9	39.3	39.4	39.4	39.4	-	-	-	-	-	-
B_VPR_40	VPR	4.5	449715.8	4811998	752	BT_40	3940	37.4	38.8	38.9	38.9	38.9	-	-	-	-	-	-
B_VPR_41	VPR	4.5	449716	4819882.9	1025	BT_21	3960	34.9	36.3	36.4	36.4	36.4	-	-	-	-	-	-
B_VPR_42	VPR	4.5	449843.7	4818926.6	751	BT_21	3019	38.5	39.9	39.9	39.9	39.9	-	-	-	-	-	-
B_VPR_43	VPR	4.5	449866.5	4818705.5	715	BT_22	2803	38.7	40.1	40.1	40.1	40.1	-	-	-	-	-	-
B_VPR_44	VPR	4.5	449906.9	4818470.2	746	BT_22	2577	38.7	40.0	40.1	40.1	40.1	-	-	-	-	-	-
B_VPR_45	VPR	4.5	449907.6	4810807.4	595	BT_40	5141	38.0	39.5	39.5	39.5	39.5	-	-	-	-	-	-
B_VPR_46	VPR	4.5	449932.6	4818242.4	690	BT_38	2358	38.7	40.1	40.1	40.1	40.1	-	-	-	-	-	-
B_VPR_47	VPR	4.5	449985.5	4818957.9	750	BT_32	3071	38.1	39.5	39.5	39.5	39.5	-	-	-	-	-	-
B_VPR_48	VPR	4.5	450150.3	4810873.9	417	BT_31	5102	40.0	41.5	41.5	41.5	41.5	-	-	-	-	-	-
B_VPR_49	VPR	4.5	450152	4811905.8	794	BT_30	4082	36.9	38.3	38.3	38.3	38.3	-	-	-	-	-	-
B_VPR_50	VPR	4.5	450189.4	4810630.7	450	BT_31	5348	39.0	40.4	40.4	40.4	40.4	-	-	-	-	-	-
B_VPR_51	VPR	4.5	450200.9	4817643.3	782	BT_34	1862	38.4	39.7	39.7	39.7	39.7	-	-	-	-	-	-
B_VPR_52	VPR	4.5	450241.4	4816011.5	903	BT_39	774	39.7	40.6	40.6	40.6	40.6	-	-	-	-	-	-
B_VPR_53	VPR	4.5	450284.4	4815804.1	808	BT_39	823	39.5	40.4	40.5	40.5	40.5	-	-	-	-	-	-
B_VPR_54	VPR	4.5	450358.4	4816752	562	BT_41	1209	40.0	41.2	41.2	41.2	41.2	-	-	-	-	-	-
B_VPR_55	VPR	4.5	450406.8	4814813.3	988	BT_39	1457	37.9	39.1	39.1	39.1	39.1	-	-	-	-	-	-
B_VPR_56	VPR	4.5	450432.5	4812112	692	BT_30	3937	36.9	38.3	38.4	38.4	38.4	-	-	-	-	-	-
B_VPR_57	VPR	4.5	450476.6	4814390.6	680	BT_28	1839	38.3	39.6	39.6	39.6	39.6	-	-	-	-	-	-

Point of Reception ID	Class	Height (m)	UTM Coordinates		Distance to Nearest Turbine (m)	Nearest Turbine ID	Distance to Transformer Substation (m)	Calculated Noise Level at Selected Wind Speeds (dBA)					Noise Level Limit (dBA)					Compliant or Non-compliant*
			X (m)	Y (m)				6	7	8	9	10	6	7	8	9	10	
B_VPR_58	VPR	4.5	450487.6	4811946.6	862	BT_30	4111	35.9	37.3	37.4	37.4	37.4	-	-	-	-	-	-
B_VPR_59	VPR	4.5	450502.3	4814181.2	561	BT_28	2030	39.0	40.4	40.4	40.4	40.4	-	-	-	-	-	-
B_VPR_60	VPR	4.5	450506	4813975.3	485	BT_28	2212	39.8	41.2	41.3	41.3	41.3	-	-	-	-	-	-
B_VPR_61	VPR	4.5	450553.8	4815629.2	989	BT_39	1123	38.2	39.3	39.3	39.3	39.3	-	-	-	-	-	-
B_VPR_62	VPR	4.5	450645.7	4812152.4	799	BT_30	3956	35.9	37.3	37.4	37.4	37.4	-	-	-	-	-	-
B_VPR_63	VPR	4.5	450671.4	4813225.6	585	BT_29	2959	38.9	40.2	40.3	40.3	40.3	-	-	-	-	-	-
B_VPR_64	VPR	4.5	450700.8	4812935.2	630	BT_29	3238	38.5	39.9	40.0	40.0	40.0	-	-	-	-	-	-
B_VPR_65	VPR	4.5	450726.5	4814004.7	707	BT_28	2298	37.5	38.8	38.9	38.9	38.9	-	-	-	-	-	-
B_VPR_66	VPR	4.5	450792.7	4812185.5	893	BT_30	3971	35.1	36.5	36.6	36.6	36.6	-	-	-	-	-	-
B_VPR_67	VPR	4.5	451917.3	4818955.4	709	BT_33	3890	35.4	36.8	36.8	36.8	36.8	-	-	-	-	-	-
B_VPR_68	VPR	4.5	452126.8	4818804.7	949	BT_33	3913	33.3	34.7	34.7	34.7	34.7	-	-	-	-	-	-
B_VPR_69	VPR	4.5	455651.2	4812858	3613	BT_37	6901	16.8	18.7	18.8	18.8	18.8	-	-	-	-	-	-

Notes:

POR – Non-participating Point of Reception
VPO – Non-participating Vacant Lot Point of Reception
PR – Participating Point of Reception
VPR – Participating Vacant Lot Point of Reception
C – Compliant
NC – Not Compliant

* The noise impact calculation was limited to source – point of reception distances of 5Km, in such cases the table entries were represented as dashes. Participating receptors are not subject to the MOE noise limits and in these cases the noise limit entries are represented as dashes as well. In either of the above cases assessment of compliance is not required and therefore this entry is also represented as a dash.

9. References

The following references were used in the preparation of this report:

PIBS 4709e, “Noise Guidelines for Wind Farms – Interpretation for Applying MOE NPC Publications to Wind Power Generation Facilities”, Ontario Ministry of the Environment, Queens Printer for Ontario, October 2008.

IEC 61400-11, “Wind turbine generator systems – Part 11: Acoustic noise measurement techniques”, International Electrotechnical Commission, 2006.

ANSI C57.12.90 (IEEE C57.12.90-1993), “IEEE Standard Test Code for Liquid-Immersed Distribution, Power, and Regulating Transformers and IEEE Guide for Short-Circuit Testing of Distribution and Power Transformers”, Institute of Electrical and Electronics Engineers, Inc., 1993.

Appendix A: Site Plan

Site Plan -> Noise Model : Point of Reception Mapping Table

Site Plan ID	Noise Model ID	Point of Reception Type
1	B_POR_148	Non-participating
2	B_POR_221	Non-participating
3	B_POR_228	Non-participating
4	B_POR_134	Non-participating
5	B_POR_227	Non-participating
6	B_POR_220	Non-participating
7	B_VPO_111	Vacant Lot Non-participating
8	B_POR_324	Non-participating
9	B_VPO_146	Vacant Lot Non-participating
10	B_VPO_69	Vacant Lot Non-participating
11	B_VPO_161	Vacant Lot Non-participating
12	B_VPO_99	Vacant Lot Non-participating
13	B_POR_333	Non-participating
14	B_POR_129	Non-participating
15	B_POR_292	Non-participating
16	B_POR_123	Non-participating
17	B_POR_320	Non-participating
18	B_POR_217	Non-participating
19	B_POR_219	Non-participating
20	B_VPO_68	Vacant Lot Non-participating
21	B_POR_226	Non-participating
22	B_POR_222	Non-participating
23	B_VPO_129	Vacant Lot Non-participating
24	B_VPO_76	Vacant Lot Non-participating
25	B_VPO_133	Vacant Lot Non-participating
26	B_POR_282	Non-participating
27	B_POR_325	Non-participating
28	B_VPO_75	Vacant Lot Non-participating
29	B_POR_326	Non-participating
30	B_VPO_112	Vacant Lot Non-participating
31	B_VPO_132	Vacant Lot Non-participating
32	B_VPO_74	Vacant Lot Non-participating
33	B_POR_216	Non-participating
34	B_VPO_107	Vacant Lot Non-participating
35	B_POR_127	Non-participating
36	B_PR_50	Participating
37	B_PR_49	Participating
38	B_VPO_71	Vacant Lot Non-participating
39	B_VPO_66	Vacant Lot Non-participating
40	B_VPO_141	Vacant Lot Non-participating

Site Plan ID	Noise Model ID	Point of Reception Type
41	B_POR_281	Non-participating
42	B_POR_225	Non-participating
43	B_PR_24	Participating
44	B_POR_224	Non-participating
45	B_POR_323	Non-participating
46	B_POR_207	Non-participating
47	B_POR_113	Non-participating
48	B_VPO_67	Vacant Lot Non-participating
49	B_VPO_127	Vacant Lot Non-participating
50	B_VPO_140	Vacant Lot Non-participating
51	B_VPO_109	Vacant Lot Non-participating
52	B_VPO_131	Vacant Lot Non-participating
53	B_VPO_108	Vacant Lot Non-participating
54	B_POR_279	Non-participating
55	B_VPO_143	Vacant Lot Non-participating
56	B_PR_56	Participating
57	B_POR_198	Non-participating
58	B_POR_218	Non-participating
59	B_VPR_50	Vacant Lot Participating
60	B_POR_223	Non-participating
61	B_VPO_128	Vacant Lot Non-participating
62	B_POR_277	Non-participating
63	B_VPR_45	Vacant Lot Participating
64	B_VPR_48	Vacant Lot Participating
65	B_VPO_126	Vacant Lot Non-participating
66	B_POR_138	Non-participating
67	B_POR_49	Non-participating
68	B_POR_50	Non-participating
69	B_POR_52	Non-participating
70	B_PR_59	Participating
71	B_POR_46	Non-participating
72	B_POR_137	Non-participating
73	B_POR_136	Non-participating
74	B_POR_86	Non-participating
75	B_VPO_60	Vacant Lot Non-participating
76	B_VPO_80	Vacant Lot Non-participating
77	B_POR_119	Non-participating
78	B_VPO_83	Vacant Lot Non-participating
79	B_POR_165	Non-participating
80	B_VPO_59	Vacant Lot Non-participating
81	B_POR_121	Non-participating
82	B_VPO_78	Vacant Lot Non-participating

Site Plan ID	Noise Model ID	Point of Reception Type
83	B_PR_19	Participating
84	B_PR_29	Participating
85	B_POR_192	Non-participating
86	B_POR_205	Non-participating
87	B_VPO_104	Vacant Lot Non-participating
88	B_VPR_4	Vacant Lot Participating
89	B_POR_209	Non-participating
90	B_POR_215	Non-participating
91	B_VPO_98	Vacant Lot Non-participating
92	B_PR_26	Participating
93	B_POR_194	Non-participating
94	B_POR_212	Non-participating
95	B_POR_195	Non-participating
96	B_POR_197	Non-participating
97	B_POR_199	Non-participating
98	B_POR_204	Non-participating
99	B_POR_149	Non-participating
100	B_POR_208	Non-participating
101	B_VPO_105	Vacant Lot Non-participating
102	B_POR_206	Non-participating
103	B_POR_203	Non-participating
104	B_VPO_106	Vacant Lot Non-participating
105	B_POR_248	Non-participating
106	B_VPR_19	Vacant Lot Participating
107	B_POR_249	Non-participating
108	B_POR_201	Non-participating
109	B_PR_20	Participating
110	B_POR_202	Non-participating
111	B_POR_269	Non-participating
112	B_POR_214	Non-participating
113	B_VPO_113	Vacant Lot Non-participating
114	B_POR_213	Non-participating
115	B_POR_241	Non-participating
116	B_VPO_118	Vacant Lot Non-participating
117	B_POR_276	Non-participating
118	B_POR_270	Non-participating
119	B_VPR_36	Vacant Lot Participating
120	B_POR_234	Non-participating
121	B_POR_275	Non-participating
122	B_POR_235	Non-participating
123	B_VPR_37	Vacant Lot Participating
124	B_VPR_39	Vacant Lot Participating

Site Plan ID	Noise Model ID	Point of Reception Type
125	B_VPO_136	Vacant Lot Non-participating
126	B_POR_244	Non-participating
127	B_VPO_138	Vacant Lot Non-participating
128	B_POR_318	Non-participating
129	B_VPR_49	Vacant Lot Participating
130	B_VPR_35	Vacant Lot Participating
131	B_POR_301	Non-participating
132	B_POR_247	Non-participating
133	B_VPR_58	Vacant Lot Participating
134	B_VPO_153	Vacant Lot Non-participating
135	B_VPR_40	Vacant Lot Participating
136	B_VPO_157	Vacant Lot Non-participating
137	B_PR_57	Participating
138	B_VPR_56	Vacant Lot Participating
139	B_VPO_168	Vacant Lot Non-participating
140	B_VPR_62	Vacant Lot Participating
141	B_VPO_166	Vacant Lot Non-participating
142	B_VPO_156	Vacant Lot Non-participating
143	B_VPR_66	Vacant Lot Participating
144	B_VPO_165	Vacant Lot Non-participating
145	B_PR_48	Participating
146	B_VPO_167	Vacant Lot Non-participating
147	B_VPO_169	Vacant Lot Non-participating
148	B_VPO_103	Vacant Lot Non-participating
149	B_POR_278	Non-participating
150	B_POR_191	Non-participating
151	B_POR_274	Non-participating
152	B_PR_22	Participating
153	B_VPO_102	Vacant Lot Non-participating
154	B_VPR_34	Vacant Lot Participating
155	B_POR_267	Non-participating
156	B_VPO_101	Vacant Lot Non-participating
157	B_VPO_155	Vacant Lot Non-participating
158	B_POR_189	Non-participating
159	B_VPR_17	Vacant Lot Participating
160	B_POR_273	Non-participating
161	B_POR_196	Non-participating
162	B_VPR_64	Vacant Lot Participating
163	B_POR_185	Non-participating
164	B_POR_272	Non-participating
165	B_POR_271	Non-participating
166	B_PR_43	Participating

Site Plan ID	Noise Model ID	Point of Reception Type
167	B_VPO_154	Vacant Lot Non-participating
168	B_VPR_15	Vacant Lot Participating
169	B_VPR_63	Vacant Lot Participating
170	B_POR_193	Non-participating
171	B_POR_190	Non-participating
172	B_PR_52	Participating
173	B_PR_14	Participating
174	B_VPO_73	Vacant Lot Non-participating
175	B_VPR_16	Vacant Lot Participating
176	B_PR_47	Participating
177	B_VPO_152	Vacant Lot Non-participating
178	B_POR_266	Non-participating
179	B_POR_427	Non-participating
180	B_POR_181	Non-participating
181	B_POR_438	Non-participating
182	B_POR_200	Non-participating
183	B_PR_44	Participating
184	B_VPO_209	Vacant Lot Non-participating
185	B_VPR_31	Vacant Lot Participating
186	B_VPR_60	Vacant Lot Participating
187	B_POR_182	Non-participating
188	B_POR_183	Non-participating
189	B_VPR_65	Vacant Lot Participating
190	B_VPO_194	Vacant Lot Non-participating
191	B_VPR_33	Vacant Lot Participating
192	B_POR_434	Non-participating
193	B_VPO_207	Vacant Lot Non-participating
194	B_PR_18	Participating
195	B_VPO_159	Vacant Lot Non-participating
196	B_POR_265	Non-participating
197	B_VPO_162	Vacant Lot Non-participating
198	B_VPR_59	Vacant Lot Participating
199	B_VPO_151	Vacant Lot Non-participating
200	B_POR_173	Non-participating
201	B_VPO_163	Vacant Lot Non-participating
202	B_POR_188	Non-participating
203	B_POR_175	Non-participating
204	B_POR_263	Non-participating
205	B_POR_262	Non-participating
206	B_VPR_57	Vacant Lot Participating
207	B_POR_471	Non-participating
208	B_PR_16	Participating

Site Plan ID	Noise Model ID	Point of Reception Type
209	B_POR_261	Non-participating
210	B_PR_45	Participating
211	B_VPO_196	Vacant Lot Non-participating
212	B_VPO_221	Vacant Lot Non-participating
213	B_PR_46	Participating
214	B_PR_17	Participating
215	B_POR_419	Non-participating
216	B_POR_184	Non-participating
217	B_POR_424	Non-participating
218	B_POR_179	Non-participating
219	B_POR_176	Non-participating
220	B_POR_436	Non-participating
221	B_POR_330	Non-participating
222	B_VPO_224	Vacant Lot Non-participating
223	B_VPR_32	Vacant Lot Participating
224	B_VPO_193	Vacant Lot Non-participating
225	B_POR_472	Non-participating
226	B_VPR_55	Vacant Lot Participating
227	B_VPO_150	Vacant Lot Non-participating
228	B_VPR_14	Vacant Lot Participating
229	B_VPO_192	Vacant Lot Non-participating
230	B_POR_256	Non-participating
231	B_POR_335	Non-participating
232	B_POR_264	Non-participating
233	B_POR_429	Non-participating
234	B_VPO_149	Vacant Lot Non-participating
235	B_POR_432	Non-participating
236	B_POR_433	Non-participating
237	B_POR_180	Non-participating
238	B_POR_431	Non-participating
239	B_POR_328	Non-participating
240	B_VPO_32	Vacant Lot Non-participating
241	B_POR_423	Non-participating
242	B_PR_39	Participating
243	B_PR_41	Participating
244	B_PR_13	Participating
245	B_VPO_223	Vacant Lot Non-participating
246	B_VPO_147	Vacant Lot Non-participating
247	B_PR_72	Participating
248	B_POR_35	Non-participating
249	B_VPO_91	Vacant Lot Non-participating
250	B_PR_73	Participating

Site Plan ID	Noise Model ID	Point of Reception Type
251	B_POR_117	Non-participating
252	B_POR_36	Non-participating
253	B_VPO_33	Vacant Lot Non-participating
254	B_VPR_30	Vacant Lot Participating
255	B_POR_250	Non-participating
256	B_PR_66	Participating
257	B_POR_143	Non-participating
258	B_VPR_61	Vacant Lot Participating
259	B_POR_260	Non-participating
260	B_VPR_27	Vacant Lot Participating
261	B_VPO_34	Vacant Lot Non-participating
262	B_PR_71	Participating
263	B_VPO_222	Vacant Lot Non-participating
264	B_POR_426	Non-participating
265	B_VPR_53	Vacant Lot Participating
266	B_VPR_18	Vacant Lot Participating
267	B_POR_174	Non-participating
268	B_POR_259	Non-participating
269	B_POR_45	Non-participating
270	B_VPR_13	Vacant Lot Participating
271	B_VPR_29	Vacant Lot Participating
272	B_POR_37	Non-participating
273	B_VPO_220	Vacant Lot Non-participating
274	B_POR_257	Non-participating
275	B_POR_337	Non-participating
276	B_VPR_52	Vacant Lot Participating
277	B_PR_37	Participating
278	B_POR_258	Non-participating
279	B_VPO_100	Vacant Lot Non-participating
280	B_POR_339	Non-participating
281	B_POR_476	Non-participating
282	B_POR_338	Non-participating
283	B_POR_172	Non-participating
284	B_POR_410	Non-participating
285	B_POR_187	Non-participating
286	B_POR_428	Non-participating
287	B_VPR_9	Vacant Lot Participating
288	B_POR_254	Non-participating
289	B_POR_44	Non-participating
290	B_VPR_11	Vacant Lot Participating
291	B_POR_468	Non-participating
292	B_PR_64	Participating

Site Plan ID	Noise Model ID	Point of Reception Type
293	B_POR_475	Non-participating
294	B_VPO_36	Vacant Lot Non-participating
295	B_PR_67	Participating
296	B_VPR_10	Vacant Lot Participating
297	B_VPO_188	Vacant Lot Non-participating
298	B_PR_40	Participating
299	B_VPO_122	Vacant Lot Non-participating
300	B_VPO_213	Vacant Lot Non-participating
301	B_POR_416	Non-participating
302	B_POR_422	Non-participating
303	B_POR_178	Non-participating
304	B_PR_6	Participating
305	B_POR_177	Non-participating
306	B_POR_40	Non-participating
307	B_POR_53	Non-participating
308	B_POR_39	Non-participating
309	B_PR_32	Participating
310	B_VPR_54	Vacant Lot Participating
311	B_PR_35	Participating
312	B_VPO_217	Vacant Lot Non-participating
313	B_PR_33	Participating
314	B_POR_418	Non-participating
315	B_VPO_37	Vacant Lot Non-participating
316	B_POR_170	Non-participating
317	B_POR_47	Non-participating
318	B_PR_63	Participating
319	B_VPO_31	Vacant Lot Non-participating
320	B_POR_355	Non-participating
321	B_PR_62	Participating
322	B_VPR_28	Vacant Lot Participating
323	B_POR_354	Non-participating
324	B_PR_58	Participating
325	B_VPO_185	Vacant Lot Non-participating
326	B_POR_425	Non-participating
327	B_POR_51	Non-participating
328	B_PR_61	Participating
329	B_PR_12	Participating
330	B_POR_169	Non-participating
331	B_PR_65	Participating
332	B_VPO_39	Vacant Lot Non-participating
333	B_PR_38	Participating
334	B_PR_36	Participating

Site Plan ID	Noise Model ID	Point of Reception Type
335	B_POR_412	Non-participating
336	B_POR_420	Non-participating
337	B_POR_321	Non-participating
338	B_VPO_216	Vacant Lot Non-participating
339	B_POR_167	Non-participating
340	B_VPO_35	Vacant Lot Non-participating
341	B_PR_10	Participating
342	B_POR_166	Non-participating
343	B_POR_319	Non-participating
344	B_POR_43	Non-participating
345	B_VPO_144	Vacant Lot Non-participating
346	B_VPO_181	Vacant Lot Non-participating
347	B_VPO_190	Vacant Lot Non-participating
348	B_VPO_52	Vacant Lot Non-participating
349	B_VPO_63	Vacant Lot Non-participating
350	B_POR_116	Non-participating
351	B_VPR_25	Vacant Lot Participating
352	B_VPR_51	Vacant Lot Participating
353	B_POR_253	Non-participating
354	B_VPO_179	Vacant Lot Non-participating
355	B_PR_11	Participating
356	B_POR_162	Non-participating
357	B_POR_242	Non-participating
358	B_POR_245	Non-participating
359	B_PR_68	Participating
360	B_POR_246	Non-participating
361	B_POR_411	Non-participating
362	B_POR_413	Non-participating
363	B_VPO_123	Vacant Lot Non-participating
364	B_POR_160	Non-participating
365	B_POR_409	Non-participating
366	B_PR_60	Participating
367	B_PR_55	Participating
368	B_VPR_7	Vacant Lot Participating
369	B_PR_27	Participating
370	B_PR_28	Participating
371	B_POR_347	Non-participating
372	B_VPO_121	Vacant Lot Non-participating
373	B_PR_8	Participating
374	B_VPR_46	Vacant Lot Participating
375	B_VPO_142	Vacant Lot Non-participating
376	B_PR_69	Participating

Site Plan ID	Noise Model ID	Point of Reception Type
377	B_POR_405	Non-participating
378	B_VPR_44	Vacant Lot Participating
379	B_POR_243	Non-participating
380	B_VPO_201	Vacant Lot Non-participating
381	B_PR_31	Participating
382	B_POR_382	Non-participating
383	B_POR_415	Non-participating
384	B_VPR_6	Vacant Lot Participating
385	B_VPR_26	Vacant Lot Participating
386	B_PR_9	Participating
387	B_VPO_90	Vacant Lot Non-participating
388	B_VPO_197	Vacant Lot Non-participating
389	B_VPR_43	Vacant Lot Participating
390	B_VPR_24	Vacant Lot Participating
391	B_VPR_68	Vacant Lot Participating
392	B_PR_34	Participating
393	B_VPR_42	Vacant Lot Participating
394	B_VPR_67	Vacant Lot Participating
395	B_VPR_47	Vacant Lot Participating
396	B_POR_154	Non-participating
397	B_PR_7	Participating
398	B_VPO_139	Vacant Lot Non-participating
399	B_POR_386	Non-participating
400	B_POR_314	Non-participating
401	B_PR_70	Participating
402	B_VPR_5	Vacant Lot Participating
403	B_VPO_120	Vacant Lot Non-participating
404	B_POR_239	Non-participating
405	B_PR_54	Participating
406	B_VPO_172	Vacant Lot Non-participating
407	B_VPO_117	Vacant Lot Non-participating
408	B_PR_5	Participating
409	B_PR_30	Participating
410	B_POR_315	Non-participating
411	B_POR_139	Non-participating
412	B_PR_53	Participating
413	B_VPO_119	Vacant Lot Non-participating
414	B_POR_237	Non-participating
415	B_POR_439	Non-participating
416	B_POR_240	Non-participating
417	B_POR_155	Non-participating
418	B_POR_430	Non-participating

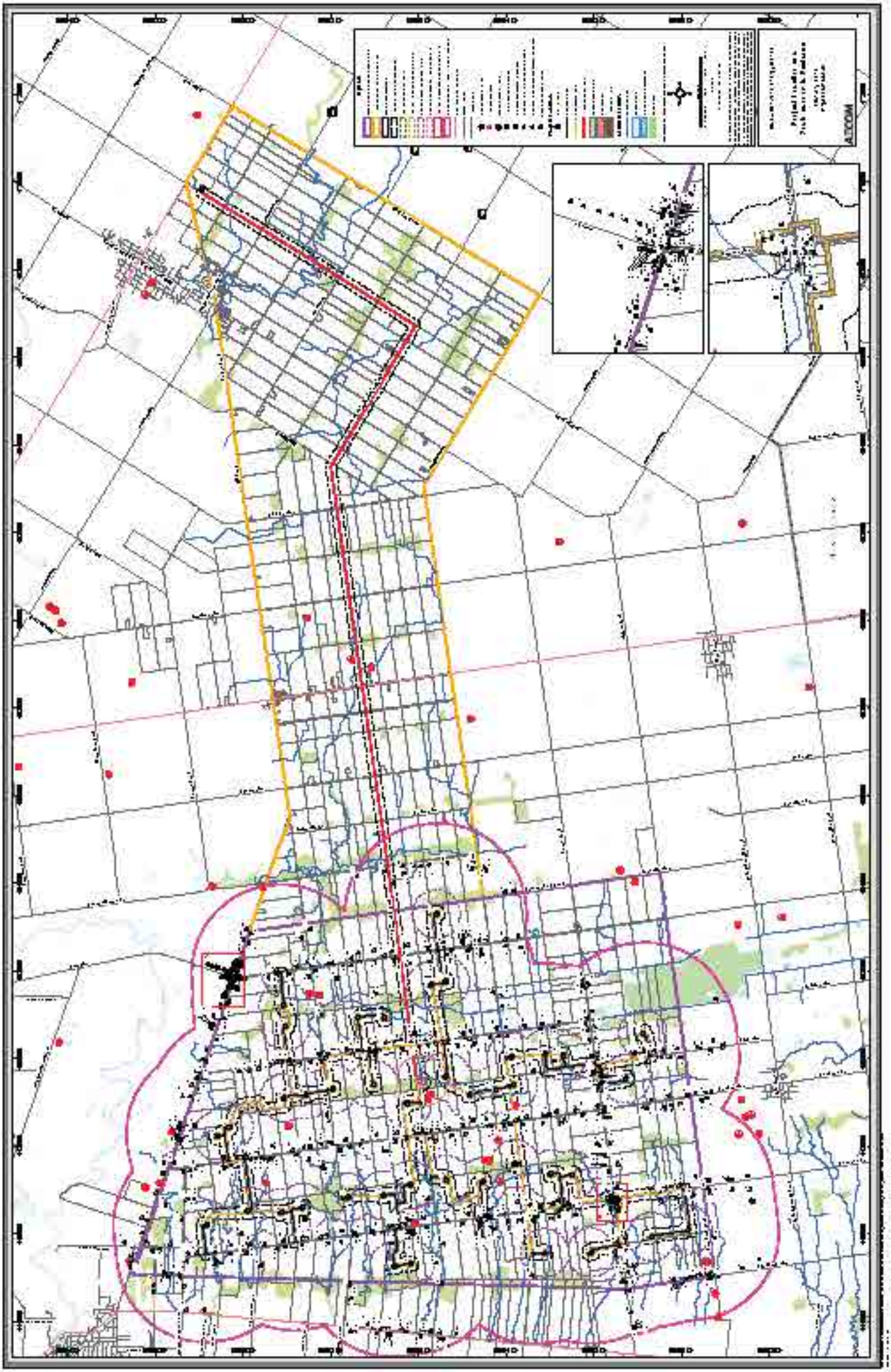
Site Plan ID	Noise Model ID	Point of Reception Type
419	B_VPR_41	Vacant Lot Participating
420	B_POR_161	Non-participating
421	B_POR_444	Non-participating
422	B_VPR_2	Vacant Lot Participating
423	B_POR_373	Non-participating
424	B_POR_435	Non-participating
425	B_VPR_23	Vacant Lot Participating
426	B_VPR_8	Vacant Lot Participating
427	B_VPO_186	Vacant Lot Non-participating
428	B_VPO_171	Vacant Lot Non-participating
429	B_POR_421	Non-participating
430	B_POR_404	Non-participating
431	B_POR_384	Non-participating
432	B_POR_406	Non-participating
433	B_PR_51	Participating
434	B_POR_371	Non-participating
435	B_POR_401	Non-participating
436	B_POR_396	Non-participating
437	B_VPO_170	Vacant Lot Non-participating
438	B_POR_370	Non-participating
439	B_POR_356	Non-participating
440	B_POR_394	Non-participating
441	B_POR_238	Non-participating
442	B_POR_407	Non-participating
443	B_POR_358	Non-participating
444	B_POR_369	Non-participating
445	B_VPO_187	Vacant Lot Non-participating
446	B_POR_392	Non-participating
447	B_POR_400	Non-participating
448	B_POR_388	Non-participating
449	B_POR_397	Non-participating
450	B_POR_368	Non-participating
451	B_POR_385	Non-participating
452	B_POR_403	Non-participating
453	B_POR_380	Non-participating
454	B_POR_378	Non-participating
455	B_POR_393	Non-participating
456	B_POR_390	Non-participating
457	B_POR_357	Non-participating
458	B_POR_408	Non-participating
459	B_POR_402	Non-participating
460	B_POR_366	Non-participating

Site Plan ID	Noise Model ID	Point of Reception Type
461	B_POR_399	Non-participating
462	B_POR_365	Non-participating
463	B_POR_362	Non-participating
464	B_POR_379	Non-participating
465	B_POR_395	Non-participating
466	B_POR_361	Non-participating
467	B_POR_367	Non-participating
468	B_VPR_20	Vacant Lot Participating
469	B_POR_364	Non-participating
470	B_PR_4	Participating
471	B_POR_151	Non-participating
472	B_POR_389	Non-participating
473	B_POR_363	Non-participating
474	B_POR_372	Non-participating
475	B_POR_360	Non-participating
476	B_POR_381	Non-participating
477	B_POR_374	Non-participating
478	B_VPO_160	Vacant Lot Non-participating
479	B_POR_391	Non-participating
480	B_POR_375	Non-participating
481	B_POR_359	Non-participating
482	B_POR_383	Non-participating
483	B_POR_377	Non-participating
484	B_POR_348	Non-participating
485	B_POR_376	Non-participating
486	B_VPO_175	Vacant Lot Non-participating
487	B_POR_387	Non-participating
488	B_POR_349	Non-participating
489	B_POR_344	Non-participating
490	B_POR_351	Non-participating
491	B_VPO_164	Vacant Lot Non-participating
492	B_POR_353	Non-participating
493	B_POR_352	Non-participating
494	B_VPR_22	Vacant Lot Participating
495	B_VPO_116	Vacant Lot Non-participating
496	B_VPO_176	Vacant Lot Non-participating
497	B_POR_343	Non-participating
498	B_VPO_173	Vacant Lot Non-participating
499	B_POR_350	Non-participating
500	B_VPO_158	Vacant Lot Non-participating
501	B_VPO_178	Vacant Lot Non-participating
502	B_POR_334	Non-participating

Site Plan ID	Noise Model ID	Point of Reception Type
503	B_POR_146	Non-participating
504	B_POR_141	Non-participating
505	B_POR_345	Non-participating
506	B_VPO_180	Vacant Lot Non-participating
507	B_PR_3	Participating
508	B_POR_346	Non-participating
509	B_POR_342	Non-participating
510	B_POR_341	Non-participating
511	B_POR_340	Non-participating
512	B_VPO_182	Vacant Lot Non-participating
513	B_VPO_183	Vacant Lot Non-participating
514	B_POR_316	Non-participating
515	B_POR_322	Non-participating
516	B_VPO_48	Vacant Lot Non-participating
517	B_VPR_38	Vacant Lot Participating
518	B_POR_317	Non-participating
519	B_VPO_135	Vacant Lot Non-participating
520	B_VPO_137	Vacant Lot Non-participating
521	B_POR_233	Non-participating
522	B_POR_313	Non-participating
523	B_POR_152	Non-participating
524	B_POR_232	Non-participating
525	B_PR_42	Participating
526	B_POR_283	Non-participating
527	B_PR_23	Participating
528	B_POR_311	Non-participating
529	B_VPO_115	Vacant Lot Non-participating
530	B_POR_285	Non-participating
531	B_VPR_3	Vacant Lot Participating
532	B_POR_210	Non-participating
533	B_VPO_85	Vacant Lot Non-participating
534	B_POR_93	Non-participating
535	B_POR_211	Non-participating
536	B_POR_112	Non-participating
537	B_POR_286	Non-participating
538	B_VPO_114	Vacant Lot Non-participating
539	B_VPR_12	Vacant Lot Participating
540	B_POR_252	Non-participating
541	B_VPO_77	Vacant Lot Non-participating
542	B_POR_268	Non-participating
543	B_VPO_70	Vacant Lot Non-participating
544	B_POR_251	Non-participating

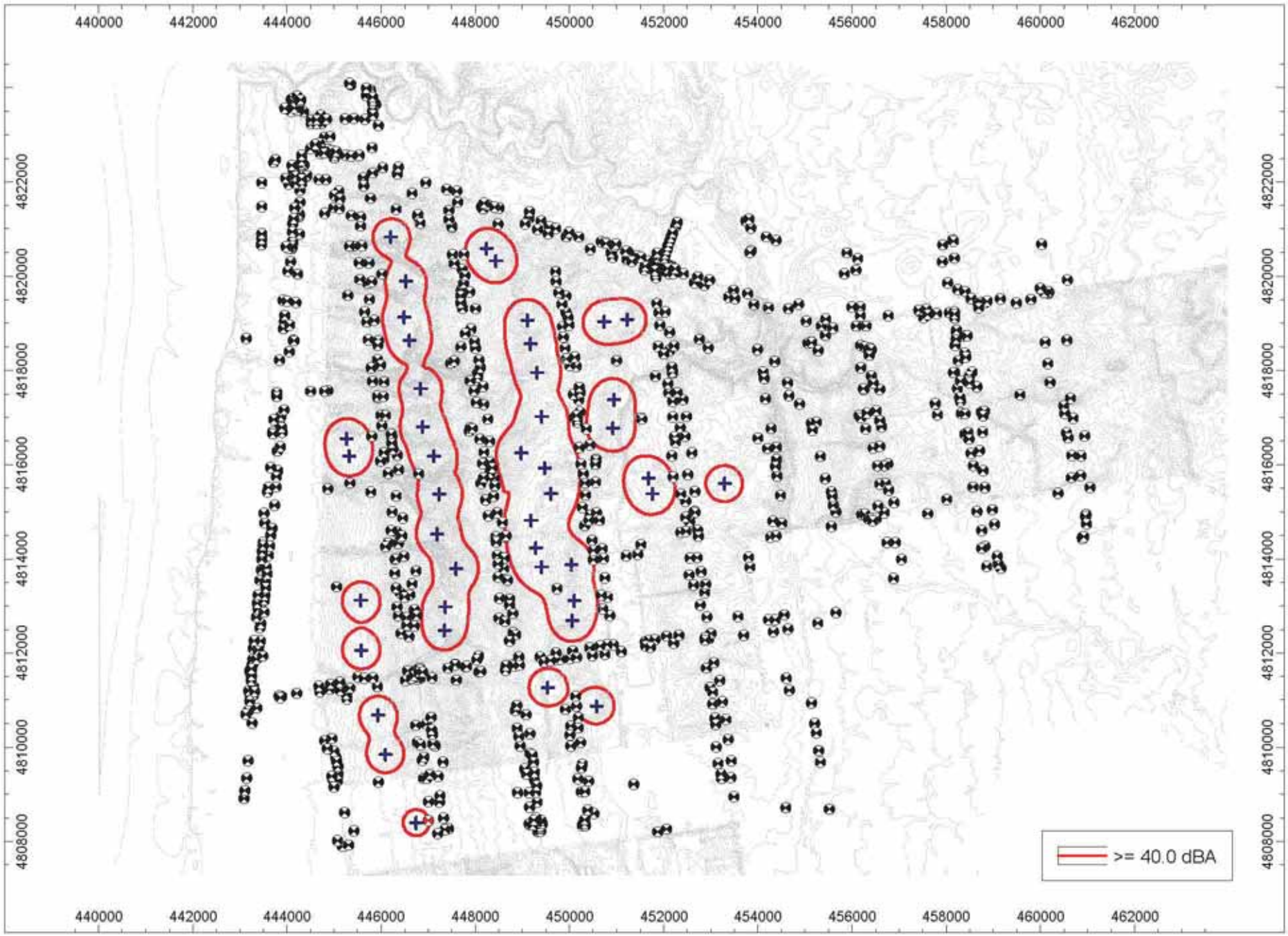
Site Plan ID	Noise Model ID	Point of Reception Type
545	B_VPO_125	Vacant Lot Non-participating
546	B_POR_255	Non-participating
547	B_VPO_124	Vacant Lot Non-participating
548	B_VPR_21	Vacant Lot Participating
549	B_VPO_79	Vacant Lot Non-participating
550	B_POR_156	Non-participating
551	B_VPO_72	Vacant Lot Non-participating
552	B_PR_21	Participating
553	B_POR_131	Non-participating
554	B_POR_132	Non-participating
555	B_POR_236	Non-participating
556	B_POR_230	Non-participating
557	B_VPO_87	Vacant Lot Non-participating
558	B_PR_25	Participating
559	B_VPO_64	Vacant Lot Non-participating
560	B_VPO_58	Vacant Lot Non-participating
561	B_VPO_86	Vacant Lot Non-participating
562	B_POR_186	Non-participating
563	B_VPO_94	Vacant Lot Non-participating
564	B_POR_171	Non-participating
565	B_PR_15	Participating
566	B_VPO_84	Vacant Lot Non-participating
567	B_POR_150	Non-participating
568	B_POR_135	Non-participating
569	B_VPO_92	Vacant Lot Non-participating

This table and the site plan only include points of reception within 2 kilometres from project related wind turbines which is the minimum requirement of the MOE noise guidelines.

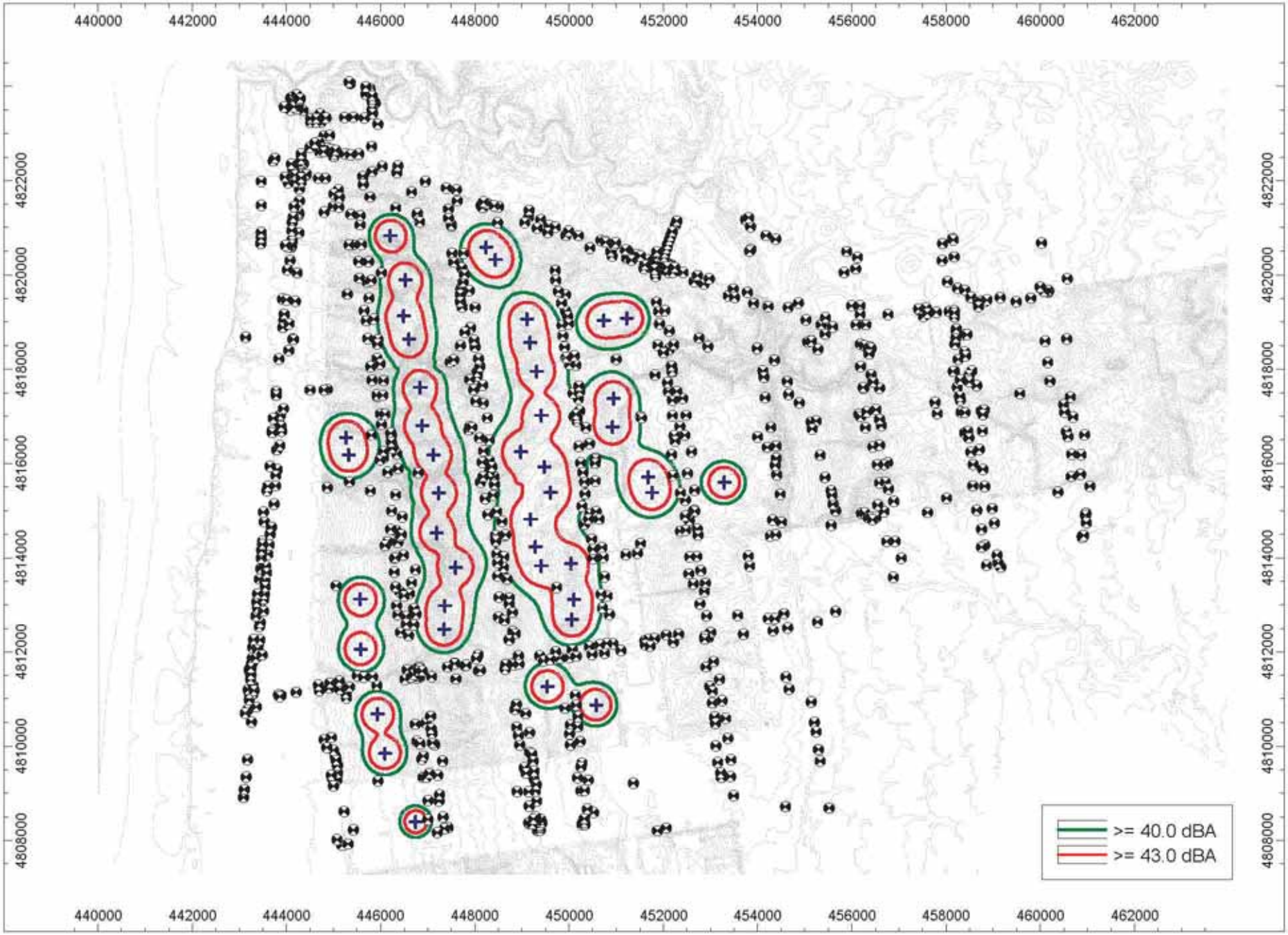


Appendix B: Noise Contour Maps

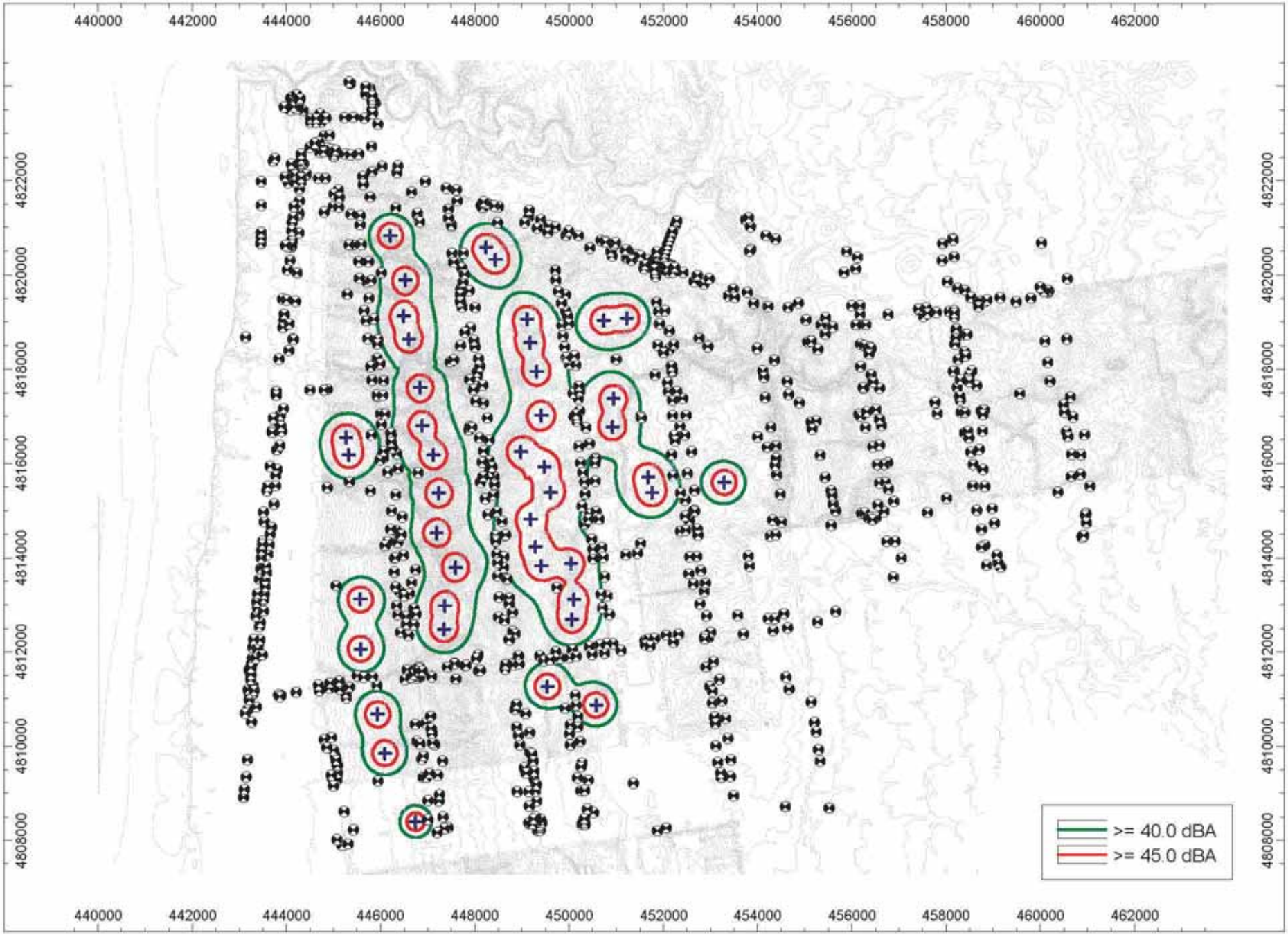
Bluewater Noise Results (Wind Speed = 6m/s)



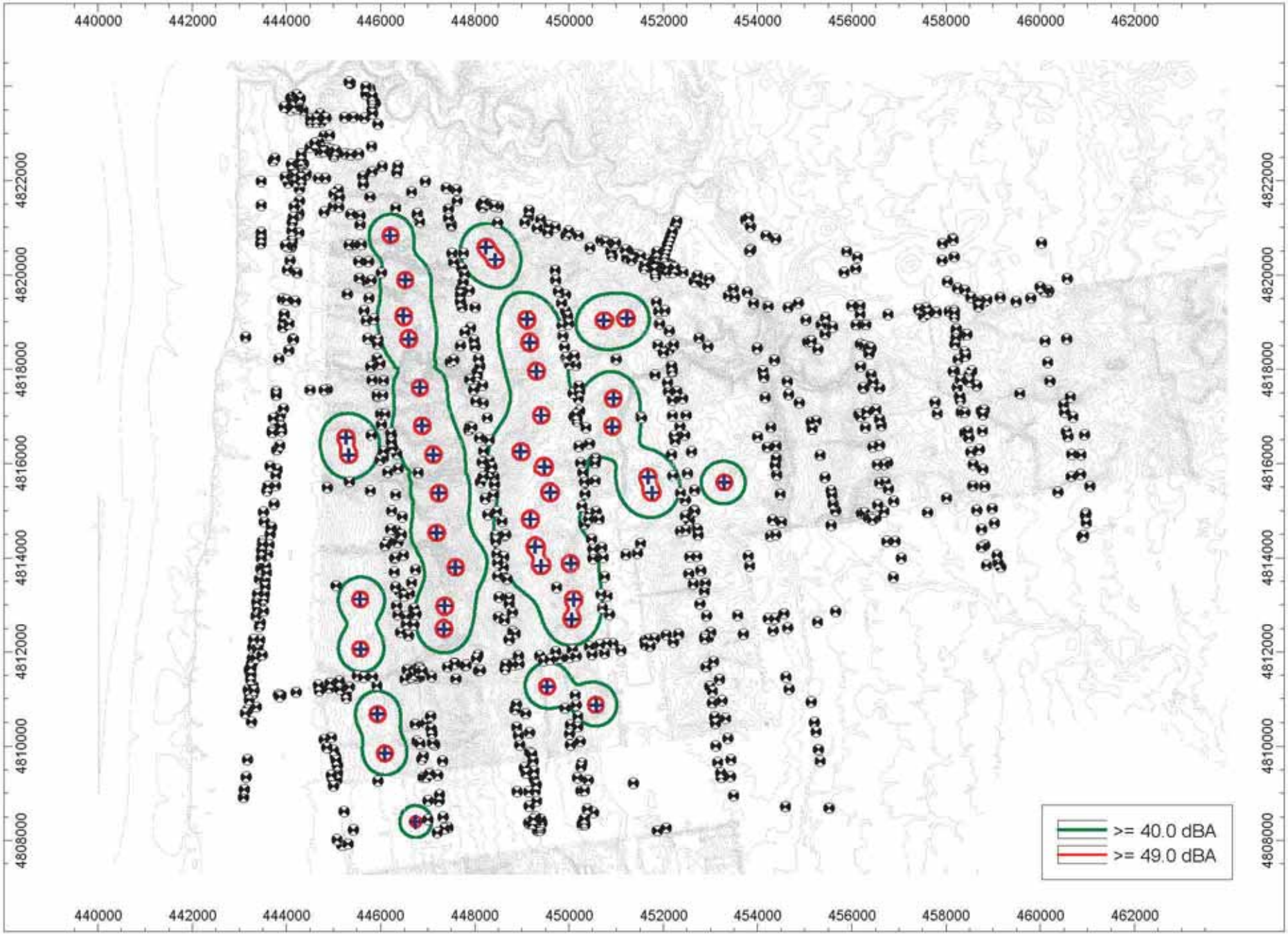
Bluewater Noise Results (Wind Speed = 7m/s)



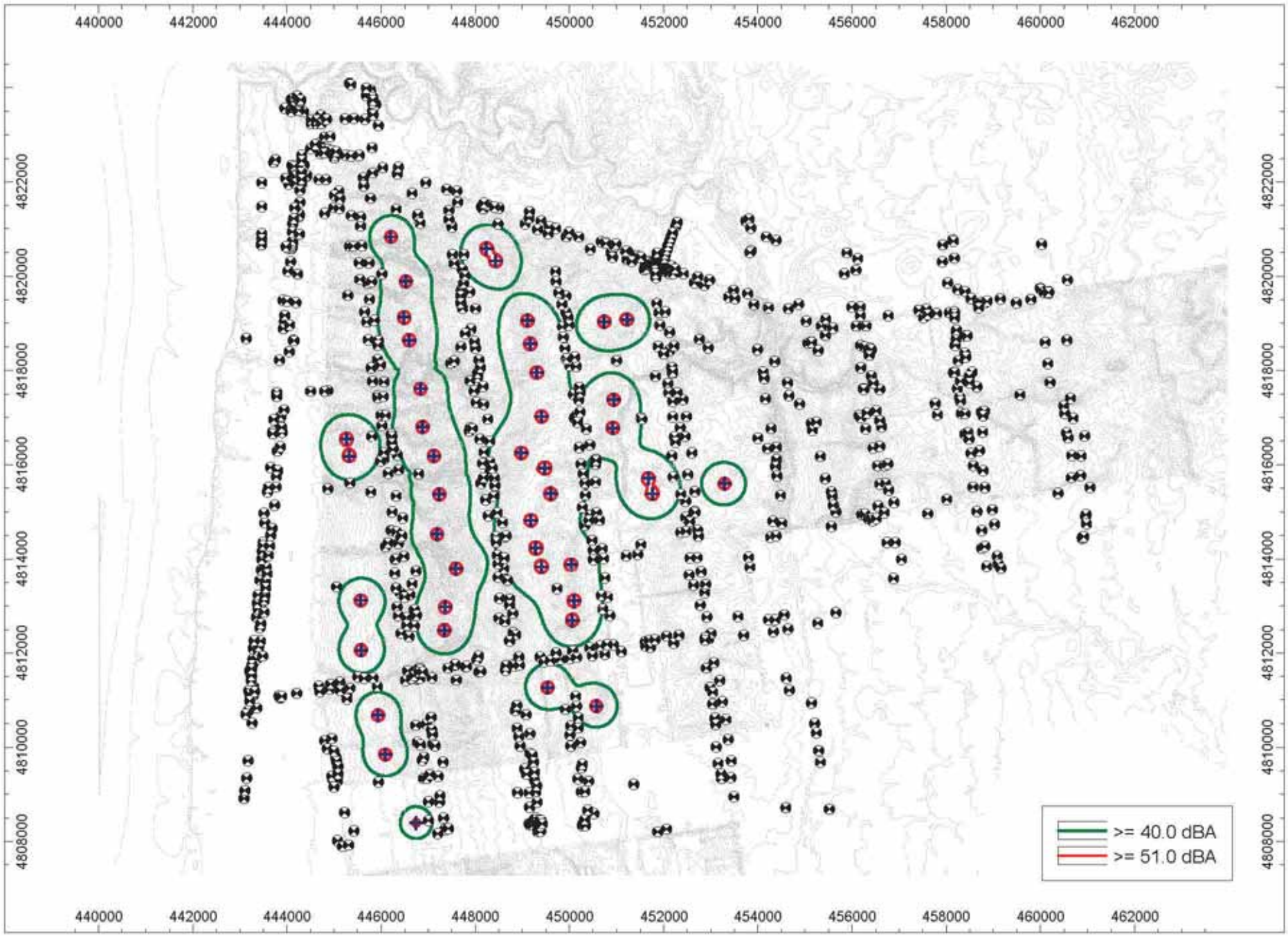
Bluewater Noise Results (Wind Speed = 8m/s)



Bluewater Noise Results (Wind Speed = 9m/s)



Bluewater Noise Results (Wind Speed = 10m/s)



Appendix C: Sample Calculations

Bluewater Noise Results (Wind Speed = 10m/s)

Configuration	
Parameter	Value
General	
Country	International
Max. Error (dB)	0.00
Max. Search Radius (m)	5000.00
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (m)	1000.00
Min. Length of Section (m)	1.00
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	60.00
Reference Time Night (min)	60.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	6.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	0.00
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	0
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rvcr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Excl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (°C)	10
rel. Humidity (%)	70
Ground Absorption G	0.70
Wind Speed for Dir. (m/s)	3.0
Roads (RLS-90)	
Strictly acc. to RLS-90	
Railways (Schall 03)	
Strictly acc. to Schall 03 / Schall-Transrapid	
Aircraft (???)	
Strictly acc. to AzB	

Receiver
Name: Bluewater-Nonparticipating Receptor-1
ID: B_POR_1
X: 443180.40
Y: 4810773.55
Z: 203.50

Point Source, ISO 9613, Name: "GE 1.6-100", ID: "BT_17"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	447358.00	4812978.00	338.92	0	32	77.4	77.4	0.0	0.0	84.5	0.0	-4.4	0.0	0.0	0.0	0.0	-0.0	-2.7	-2.7
2	447358.00	4812978.00	338.92	0	63	86.2	86.2	0.0	0.0	84.5	0.5	-4.4	0.0	0.0	0.0	0.0	-0.0	5.6	5.6
3	447358.00	4812978.00	338.92	0	125	95.1	95.1	0.0	0.0	84.5	1.9	1.4	0.0	0.0	0.0	0.0	-0.0	7.4	7.4
4	447358.00	4812978.00	338.92	0	250	96.9	96.9	0.0	0.0	84.5	4.7	-0.3	0.0	0.0	0.0	0.0	-0.0	8.0	8.0
5	447358.00	4812978.00	338.92	0	500	95.5	95.5	0.0	0.0	84.5	9.0	-1.3	0.0	0.0	0.0	0.0	-0.0	3.3	3.3
6	447358.00	4812978.00	338.92	0	1000	99.9	99.9	0.0	0.0	84.5	17.5	-1.3	0.0	0.0	0.0	0.0	-0.0	-0.8	-0.8
7	447358.00	4812978.00	338.92	0	2000	99.3	99.3	0.0	0.0	84.5	45.8	-1.3	0.0	0.0	0.0	0.0	-0.0	-29.7	-29.7
8	447358.00	4812978.00	338.92	0	4000	90.5	90.5	0.0	0.0	84.5	155.0	-1.3	0.0	0.0	0.0	0.0	-0.0	-147.7	-147.7
9	447358.00	4812978.00	338.92	0	8000	71.6	71.6	0.0	0.0	84.5	552.9	-1.3	0.0	0.0	0.0	0.0	-0.0	-564.4	-564.4

Point Source, ISO 9613, Name: "GE 1.6-100", ID: "BT_18"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	447341.00	4812484.00	335.90	0	32	77.4	77.4	0.0	0.0	84.1	0.0	-4.3	0.0	0.0	0.0	0.0	-0.0	-2.4	-2.4
2	447341.00	4812484.00	335.90	0	63	86.2	86.2	0.0	0.0	84.1	0.5	-4.3	0.0	0.0	0.0	0.0	-0.0	6.0	6.0
3	447341.00	4812484.00	335.90	0	125	95.1	95.1	0.0	0.0	84.1	1.8	1.4	0.0	0.0	0.0	0.0	-0.0	7.8	7.8
4	447341.00	4812484.00	335.90	0	250	96.9	96.9	0.0	0.0	84.1	4.5	-0.3	0.0	0.0	0.0	0.0	-0.0	8.7	8.7
5	447341.00	4812484.00	335.90	0	500	95.5	95.5	0.0	0.0	84.1	8.6	-1.3	0.0	0.0	0.0	0.0	-0.0	4.2	4.2
6	447341.00	4812484.00	335.90	0	1000	99.9	99.9	0.0	0.0	84.1	16.7	-1.3	0.0	0.0	0.0	0.0	-0.0	0.5	0.5
7	447341.00	4812484.00	335.90	0	2000	99.3	99.3	0.0	0.0	84.1	43.6	-1.3	0.0	0.0	0.0	0.0	-0.0	-27.1	-27.1
8	447341.00	4812484.00	335.90	0	4000	90.5	90.5	0.0	0.0	84.1	147.6	-1.3	0.0	0.0	0.0	0.0	-0.0	-139.9	-139.9
9	447341.00	4812484.00	335.90	0	8000	71.6	71.6	0.0	0.0	84.1	526.5	-1.3	0.0	0.0	0.0	0.0	-0.0	-537.7	-537.7

Point Source, ISO 9613, Name: "GE 1.6-100", ID: "BT_3"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	445565.00	4813118.00	301.00	0	32	77.4	77.4	0.0	0.0	81.5	0.0	-3.7	0.0	0.0	0.0	0.0	-0.0	-0.4	-0.4
2	445565.00	4813118.00	301.00	0	63	86.2	86.2	0.0	0.0	81.5	0.3	-3.7	0.0	0.0	0.0	0.0	-0.0	8.1	8.1
3	445565.00	4813118.00	301.00	0	125	95.1	95.1	0.0	0.0	81.5	1.3	1.6	0.0	0.0	0.0	0.0	-0.0	10.7	10.7
4	445565.00	4813118.00	301.00	0	250	96.9	96.9	0.0	0.0	81.5	3.3	-0.1	0.0	0.0	0.0	0.0	-0.0	12.2	12.2
5	445565.00	4813118.00	301.00	0	500	95.5	95.5	0.0	0.0	81.5	6.4	-1.1	0.0	0.0	0.0	0.0	-0.0	8.8	8.8
6	445565.00	4813118.00	301.00	0	1000	99.9	99.9	0.0	0.0	81.5	12.4	-1.1	0.0	0.0	0.0	0.0	-0.0	7.1	7.1
7	445565.00	4813118.00	301.00	0	2000	99.3	99.3	0.0	0.0	81.5	32.4	-1.1	0.0	0.0	0.0	0.0	-0.0	-13.5	-13.5
8	445565.00	4813118.00	301.00	0	4000	90.5	90.5	0.0	0.0	81.5	109.7	-1.1	0.0	0.0	0.0	0.0	-0.0	-99.6	-99.6
9	445565.00	4813118.00	301.00	0	8000	71.6	71.6	0.0	0.0	81.5	391.4	-1.1	0.0	0.0	0.0	0.0	-0.0	-400.2	-400.2

Point Source, ISO 9613, Name: "GE 1.6-100", ID: "BT_4"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	445568.00	4812063.00	301.35	0	32	77.4	77.4	0.0	0.0	79.7	0.0	-3.2	0.0	0.0	0.0	0.0	-0.0	0.9	0.9
2	445568.00	4812063.00	301.35	0	63	86.2	86.2	0.0	0.0	79.7	0.3	-3.2	0.0	0.0	0.0	0.0	-0.0	9.5	9.5
3	445568.00	4812063.00	301.35	0	125	95.1	95.1	0.0	0.0	79.7	1.1	1.7	0.0	0.0	0.0	0.0	-0.0	12.6	12.6
4	445568.00	4812063.00	301.35	0	250	96.9	96.9	0.0	0.0	79.7	2.7	0.0	0.0	0.0	0.0	0.0	-0.0	14.5	14.5
5	445568.00	4812063.00	301.35	0	500	95.5	95.5	0.0	0.0	79.7	5.2	-1.0	0.0	0.0	0.0	0.0	-0.0	11.6	11.6
6	445568.00	4812063.00	301.35	0	1000	99.9	99.9	0.0	0.0	79.7	10.1	-1.0	0.0	0.0	0.0	0.0	-0.0	11.1	11.1
7	445568.00	4812063.00	301.35	0	2000	99.3	99.3	0.0	0.0	79.7	26.3	-1.0	0.0	0.0	0.0	0.0	-0.0	-5.8	-5.8
8	445568.00	4812063.00	301.35	0	4000	90.5	90.5	0.0	0.0	79.7	89.1	-1.0	0.0	0.0	0.0	0.0	-0.0	-77.3	-77.3
9	445568.00	4812063.00	301.35	0	8000	71.6	71.6	0.0	0.0	79.7	317.7	-1.0	0.0	0.0	0.0	0.0	-0.0	-324.8	-324.8

Point Source, ISO 9613, Name: "GE 1.6-100", ID: "BT_5"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	445933.00	4810683.00	301.26	0	32	77.4	77.4	0.0	0.0	79.8	0.0	-3.2	0.0	0.0	0.0	0.0	-0.0	0.8	0.8

Bluewater Noise Results (Wind Speed = 10m/s)

Point Source, ISO 9613, Name: "GE 1.6-100", ID: "BT_5"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
2	445933.00	4810683.00	301.26	0	63	86.2	86.2	0.0	0.0	79.8	0.3	-3.2	0.0	0.0	0.0	0.0	-0.0	9.4	9.4
3	445933.00	4810683.00	301.26	0	125	95.1	95.1	0.0	0.0	79.8	1.1	1.7	0.0	0.0	0.0	0.0	-0.0	12.5	12.5
4	445933.00	4810683.00	301.26	0	250	96.9	96.9	0.0	0.0	79.8	2.8	0.0	0.0	0.0	0.0	0.0	-0.0	14.3	14.3
5	445933.00	4810683.00	301.26	0	500	95.5	95.5	0.0	0.0	79.8	5.2	-1.0	0.0	0.0	0.0	0.0	-0.0	11.4	11.4
6	445933.00	4810683.00	301.26	0	1000	99.9	99.9	0.0	0.0	79.8	10.2	-1.0	0.0	0.0	0.0	0.0	-0.0	10.9	10.9
7	445933.00	4810683.00	301.26	0	2000	99.3	99.3	0.0	0.0	79.8	26.7	-1.0	0.0	0.0	0.0	0.0	-0.0	-6.3	-6.3
8	445933.00	4810683.00	301.26	0	4000	90.5	90.5	0.0	0.0	79.8	90.4	-1.0	0.0	0.0	0.0	0.0	-0.0	-78.7	-78.7
9	445933.00	4810683.00	301.26	0	8000	71.6	71.6	0.0	0.0	79.8	322.4	-1.0	0.0	0.0	0.0	0.0	-0.0	-329.7	-329.7

Point Source, ISO 9613, Name: "GE 1.6-100", ID: "BT_6"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	446088.00	4809847.00	301.57	0	32	77.4	77.4	0.0	0.0	80.7	0.0	-3.5	0.0	0.0	0.0	0.0	-0.0	0.2	0.2
2	446088.00	4809847.00	301.57	0	63	86.2	86.2	0.0	0.0	80.7	0.3	-3.5	0.0	0.0	0.0	0.0	-0.0	8.7	8.7
3	446088.00	4809847.00	301.57	0	125	95.1	95.1	0.0	0.0	80.7	1.2	1.6	0.0	0.0	0.0	0.0	-0.0	11.6	11.6
4	446088.00	4809847.00	301.57	0	250	96.9	96.9	0.0	0.0	80.7	3.0	-0.1	0.0	0.0	0.0	0.0	-0.0	13.2	13.2
5	446088.00	4809847.00	301.57	0	500	95.5	95.5	0.0	0.0	80.7	5.8	-1.1	0.0	0.0	0.0	0.0	-0.0	10.1	10.1
6	446088.00	4809847.00	301.57	0	1000	99.9	99.9	0.0	0.0	80.7	11.3	-1.1	0.0	0.0	0.0	0.0	-0.0	9.0	9.0
7	446088.00	4809847.00	301.57	0	2000	99.3	99.3	0.0	0.0	80.7	29.6	-1.1	0.0	0.0	0.0	0.0	-0.0	-10.0	-10.0
8	446088.00	4809847.00	301.57	0	4000	90.5	90.5	0.0	0.0	80.7	100.1	-1.1	0.0	0.0	0.0	0.0	-0.0	-89.3	-89.3
9	446088.00	4809847.00	301.57	0	8000	71.6	71.6	0.0	0.0	80.7	357.2	-1.1	0.0	0.0	0.0	0.0	-0.0	-365.3	-365.3

Point Source, ISO 9613, Name: "Zurich Wind Farm", ID: "Z_1"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	446741.00	4808398.00	305.27	0	32	0.0	0.0	0.0	0.0	83.6	0.0	-4.3	0.0	0.0	0.0	0.0	-0.0	-79.3	-79.3
2	446741.00	4808398.00	305.27	0	63	78.6	78.6	0.0	0.0	83.6	0.4	-4.3	0.0	0.0	0.0	0.0	-0.0	-1.2	-1.2
3	446741.00	4808398.00	305.27	0	125	84.4	84.4	0.0	0.0	83.6	1.7	1.4	0.0	0.0	0.0	0.0	-0.0	-2.3	-2.3
4	446741.00	4808398.00	305.27	0	250	93.3	93.3	0.0	0.0	83.6	4.3	-0.3	0.0	0.0	0.0	0.0	-0.0	5.7	5.7
5	446741.00	4808398.00	305.27	0	500	96.8	96.8	0.0	0.0	83.6	8.1	-1.3	0.0	0.0	0.0	0.0	-0.0	6.3	6.3
6	446741.00	4808398.00	305.27	0	1000	97.9	97.9	0.0	0.0	83.6	15.8	-1.3	0.0	0.0	0.0	0.0	-0.0	-0.3	-0.3
7	446741.00	4808398.00	305.27	0	2000	92.7	92.7	0.0	0.0	83.6	41.5	-1.3	0.0	0.0	0.0	0.0	-0.0	-31.2	-31.2
8	446741.00	4808398.00	305.27	0	4000	87.6	87.6	0.0	0.0	83.6	140.4	-1.3	0.0	0.0	0.0	0.0	-0.0	-135.2	-135.2
9	446741.00	4808398.00	305.27	0	8000	84.6	84.6	0.0	0.0	83.6	500.9	-1.3	0.0	0.0	0.0	0.0	-0.0	-498.7	-498.7

Appendix D: Equipment Noise Emission Data

Technical Description of the 1.6-100 Wind Turbine and Major Components

The wind turbine is a three bladed, upwind, horizontal-axis wind turbine with a rotor diameter of 100 m. The turbine rotor and nacelle are mounted on top of a tubular tower giving a rotor hub height of 80m. The machine employs active yaw control (designed to steer the machine with respect to the wind direction), active blade pitch control (designed to regulate turbine rotor speed), and a generator/power electronic converter system.

The wind turbine features a distributed drive train design wherein the major drive train components including main shaft bearings, gearbox, generator, yaw drives, and control panel are attached to a bedplate (see Figure 1).

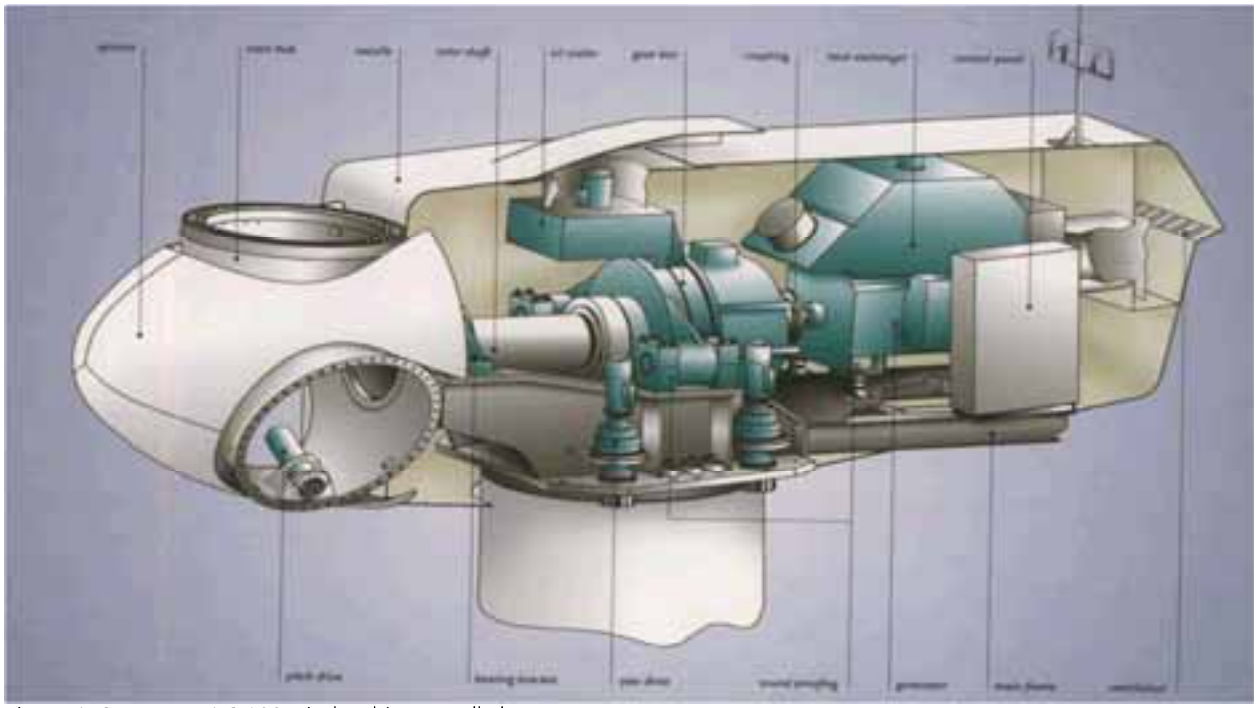


Figure 1: GE Energy 1.6-100 wind turbine nacelle layout

Rotor

The rotor diameter is 100 m, resulting in a swept area of 7,854 m, and is designed to operate between 9.75 and 16.18 revolutions per minute (rpm). Rotor speed is regulated by a combination of blade pitch angle adjustment and generator/converter torque control. The rotor spins in a clock-wise direction under normal operating conditions when viewed from an upwind location.

Full blade pitch angle range is approximately 90°, with the 0°-position being with the airfoil chord line flat to the prevailing wind. The blades being pitched to a full feather pitch angle of approximately 90° accomplishes aerodynamic braking of the rotor; whereby the blades “spill” the wind thus limiting rotor speed.

Blades

There are three rotor blades used on each wind turbine. The airfoils transition along the blade span with the thicker airfoils being located in-board towards the blade root (hub) and gradually tapering to thinner cross sections out towards the blade tip.

Blade Pitch Control System

The rotor utilizes three (one for each blade) independent electric pitch motors and controllers to provide adjustment of the blade pitch angle during operation. Blade pitch angle is adjusted by an electric drive that is mounted inside the rotor hub and is coupled to a ring gear mounted to the inner race of the blade pitch bearing (see Figure 1).

GE's active-pitch controller enables the wind turbine rotor to regulate speed, when above rated wind speed, by allowing the blade to "spill" excess aerodynamic lift. Energy from wind gusts below rated wind speed is captured by allowing the rotor to speed up, transforming this gust energy into kinetic which may then be extracted from the rotor.

Three independent back-up units are provided to power each individual blade pitch system to feather the blades and shut down the machine in the event of a grid line outage or other fault. By having all three blades outfitted with independent pitch systems, redundancy of individual blade aerodynamic braking capability is provided.

Hub

The hub is used to connect the three rotor blades to the turbine main shaft. The hub also houses the three electric blade pitch systems and is mounted directly to the main shaft. Access to the inside of the hub is provided through a hatch.

Gearbox

The gearbox in the wind turbine is designed to transmit power between the low-rpm turbine rotor and high-rpm electric generator. The gearbox is a multi-stage planetary/helical gear design. The gearbox is mounted to the machine bedplate. The gearing is designed to transfer torsional power from the wind turbine rotor to the electric generator. A parking brake is mounted on the high-speed shaft of the gearbox.

Bearings

The blade pitch bearing is designed to allow the blade to pitch about a span-wise pitch axis. The inner race of the blade pitch bearing is outfitted with a blade drive gear that enables the blade to be driven in pitch by an electric gear-driven motor/controller.

The main shaft bearing is a roller bearing mounted in a pillow-block housing arrangement. The bearings used inside the gearbox are of the cylindrical, spherical and tapered roller type. These bearings are designed to provide bearing and alignment of the internal gearing shafts and accommodate radial and axial loads.

Brake System

The electrically actuated individual blade pitch systems act as the main braking system for the wind turbine. Braking under normal operating conditions is accomplished by feathering the blades out of the wind. Any single feathered rotor blade is designed to slow the rotor, and each rotor blade has its own back-up to provide power to the electric drive in the event of a grid line loss.

The turbine is also equipped with a mechanical brake located at the output (high-speed) shaft of the gearbox. This brake is only applied as an auxiliary brake to the main aerodynamic brake and to prevent rotation of the machinery as required by certain service activities.

Generator

The generator is a doubly-fed induction type. The generator meets protection class requirements of the International Standard IP 54 (totally enclosed). The generator is mounted to the bedplate and the mounting is designed so as to reduce vibration and noise transfer to the bedplate.

Flexible Coupling

Designed to protect the drive train from excessive torque loads, a flexible coupling is provided between the generator and gearbox output shaft this is equipped with a torque-limiting device sized to keep the maximum allowable torque below the maximum design limit of the drive train.

Yaw System

A roller bearing attached between the nacelle and tower facilitates yaw motion. Planetary yaw drives (with brakes that engage when the drive is disabled) mesh with the outside gear of the yaw bearing and steer the machine to track the wind in yaw. The automatic yaw brakes engage in order to prevent the yaw drives from seeing peak loads from any turbulent wind.

The controller activates the yaw drives to align the nacelle to the average wind direction based on the wind vane sensor mounted on top of the nacelle.

A cable twist sensor provides a record of nacelle yaw position and cable twisting. After the sensor detects excessive rotation in one direction, the controller automatically brings the rotor to a complete stop, untwists the cable by counter yawing of the nacelle, and restarts the wind turbine.

Tower

The wind turbine is mounted on top of a tubular tower. The tubular tower is manufactured in sections from steel plate. Access to the turbine is through a lockable steel door at the base of the tower. Service platforms are provided. Access to the nacelle is provided by a ladder and a fall arresting safety system is included. Interior lights are installed at critical points from the base of the tower to the tower top.

Nacelle

The nacelle houses the main components of the wind turbine generator. Access from the tower into the nacelle is through the bottom of the nacelle. The nacelle is ventilated. It is illuminated with electric light. A hatch at the front end of the nacelle provides access to the blades and hub. The rotor can be secured in place with a rotor lock.

Anemometer, Wind Vane and Lightning Rod

An anemometer, wind vane and lightning rod are mounted on top of the nacelle housing. Access to these sensors is accomplished through a hatch in the nacelle roof.

Lightning Protection

The rotor blades are equipped with a lightning receptors mounted in the blade. The turbine is grounded and shielded to protect against lightning, however, lightning is an unpredictable force of nature, and it is possible that a lightning strike could damage various components notwithstanding the lightning protection deployed in the machine.

Wind Turbine Control System

The wind turbine machine can be controlled automatically or manually from either an interface located inside the nacelle or from a control box at the bottom of the tower. Control signals can also be sent from a remote computer via a Supervisory Control and Data Acquisition System (SCADA), with local lockout capability provided at the turbine controller.
Service switches at the tower top prevent service personnel at the bottom of the tower from operating certain systems of the turbine while service personnel are in the nacelle. To override any machine operation, Emergency-stop buttons located in the tower base and in the nacelle can be activated to stop the turbine in the event of an emergency.

Power Converter

The wind turbine uses a power converter system that consists of a converter on the rotor side, a DC intermediate circuit, and a power inverter on the grid side.

The converter system consists of a power module and the associated electrical equipment. Variable output frequency of the converter allows operation of the generator.

Technical Data for the 1.6-100

Rotor

Diameter	100 m
Number of blades	3
Swept area	7,854 m_2
Rotor speed range	9.75 to 16.18 rpm
Rotational direction	Clockwise looking downwind
Maximum tip speed	84.7 m/s
Orientation	Upwind
Speed regulation	Pitch control
Aerodynamic brakes	Full feathering

Pitch System

Principle	Independent blade pitch control
Actuation	Individual electric drive

Yaw System

Yaw rate	0.5 degree/s

1.6-100 Calculated Third Octave Band Apparent Sound Power Level LWA,k

Table 1 provides reference values per IEC 61400-11, based on the total apparent sound power level (A-weighted) defined in the general product acoustic specification for this turbine type. The uncertainties for octave sound power levels are generally higher than for total sound power levels. Guidance is given in IEC 61400-11, Annex D. The third octave-band spectra are for information only.

1.6-100 with 80 m HH - Normal Operation 3rd Octave Band Spectra									
Standard WS at 10m [m/s]		5	5.5	6	6.5	7	8	9	10-Cutout
Hub Height WS at 80 m [m/s]		7	7.7	8.4	9.1	9.7	11.1	12.5	14-Cutout
Frequency [Hz]	25	60.2	62.2	64.2	65.9	67.6	69.1	69.2	69
	32	63.2	65.1	67.1	68.8	70.5	72	72.1	71.9
	40	66.2	68.2	70.1	71.9	73.5	75.1	75.1	74.9
	50	69	71	73	74.7	76.4	77.9	78	77.8
	63	72	73.9	75.9	77.6	79.3	80.9	80.9	80.7
	80	75	77	78.9	80.7	82.4	83.9	83.9	83.7
	100	77.5	79.5	81.5	83.2	84.9	86.4	86.5	86.3
	125	80	82.2	84.2	86	87.9	89.8	90.1	90.2
	160	81.4	83.8	85.7	87.1	89.1	91.4	92.1	92.5
	200	82.2	84.7	86.1	86.7	88.7	91.3	92.2	92.9
	250	83.7	86.2	87.2	87.1	88.6	90.7	91.6	92.2
	315	84.7	87.3	88.3	87.9	88.7	90	90.6	91
	400	85	87.5	88.8	88.7	89.1	89.6	89.8	89.9
	500	85.2	87.9	89.6	90.1	90.6	90.7	90.5	90.3
	630	84.8	87.5	90	91.7	92.4	92.6	92.2	91.8
	800	83.9	86.6	89.7	92.4	93.7	94.3	93.9	93.5
	1000	82.5	85.4	89.1	92.6	94.5	95.6	95.3	95
	1250	81.4	84.1	88.1	92.5	94.9	96.7	96.5	96.3
	1600	80.7	82.5	86.1	90.7	93.5	96	95.9	95.8
	2000	80.9	82.3	84.9	88.3	91.4	94.5	94.7	94.7
	2500	80.5	81.9	83.8	86.1	88.9	91.9	92.3	92.3
	3150	78.8	80.2	81.8	83.7	85.9	88.4	88.7	89.1
	4000	75.6	76.9	78.4	80.2	82.1	83.8	84	83.9
	5000	71.4	72.5	73.9	75.5	77.2	78.7	78.7	78.4
	6300	65.2	65.9	67	68.6	70.3	71.7	71.8	71.2
	8000	55.3	55.5	56.2	57.9	59.7	61.5	62.9	60.8
	10000	42.9	42.3	42.7	44.4	46.5	48.6	49	48.1
	12500	26.9	25.2	25.1	27.3	29.7	33.6	32.1	32.2
	16000	3.7	0.4	-0.4	2.2	5.2	8.9	9	9.3
	20000	-21.9	-27.3	-29	-25.9	-22.3	-18.3	-17.4	-16.8
Total apparent sound power		94.8	97.3	99.5	101.5	103.3	104.9	105	105

Table 1: Calculated Apparent Third Octave Band Sound Power Level (A-weighted), 1.6-100 with 80 m hub height as function of Wind Speed v_{10m}

Tonal Audibility

At the reference measuring point R_o, a ground distance from the turbine base equal to hub height plus half the rotor diameter, the 1.6-100 turbine has an expected value for tonal audibility of $\Delta L_{a,k} < 2$ dB, irrespective of wind speed, hub height, and grid frequency.[2]

Uncertainty Levels

The apparent sound power levels given above are calculated mean levels. If a wind turbine noise performance test is carried out, it needs to be done in accordance with the regulations of the international standard IEC 61400-11, ed. 2.1: 2006. Uncertainty levels associated with measurements are described in IEC/TS 61400-14.

Per IEC/TS 61400-14, L_{WAd} is the maximum apparent sound power level resulting from ***n*** measurements performed according to IEC 61400-11 standard for 95 % confidence level: $L_{WAd} = \overline{L_{WA}} + K$, where $\overline{L_{WA}}$ is the mean apparent sound power level from ***n*** IEC 61400-11 testing reports and **$K = 1{,}645 \cdot \sigma T$**.

The testing standard deviation values σ_T, σ_R and σ_P for measured apparent sound power level are described by IEC/TS 61400-14 where σ_T is the total standard deviation, σ_P is the standard deviation for product variation and σ_R is the standard deviation for test reproducibility.

Assuming $\sigma_R < 0.8$ dB and $\sigma_P < 0.8$ dB typical values, leads to calculated **K < 2 dB** for 95 % confidence level.

IEC 61400-11 and IEC/TS 61400-14 Terminology

- $L_{WA,k}$ is wind turbine apparent sound power level (referenced to 1^{-12} W) measured with A-weighting as function of reference wind speed v_{10m}. Derived from multiple measurement reports per IEC 61400-11, it is considered as a mean value.
- σ_P is the product variation i.e. the 1.56-100 unit-to-unit product variation; typically < 0.8 dB
- σ_R is the overall measurement testing reproducibility as defined per IEC 61400-11; typically < 0.8 dB with adequate measurement conditions and sufficient amount of data samples
- σ_T is the total standard deviation combining both σ_P and σ_R
- **$K = 1{,}645 \cdot \sigma_T$** is defined by IEC/TS 61400-14 for 95 % confidence level
- R_o is the ground measuring distance from the wind turbine tower axis per IEC 61400-11
- $\Delta L_{a,k}$ is the tonal audibility according to IEC 61400-11, described as potentially audible narrow band sound

GE 1.6 Wind Shear Adjusted Noise Emissions

Night-time Monthly Average Wind Speed Data (2300 to 0700)

Data Set	Wind Speed Sensor	Height	Wind Speed (m/s)											
			January	February	March	April	May	June	July	August	September	October	November	December
1	spd_avg_48.5_W_ch01	48.50	6.61	6.13	6.31	6.86	5.91	4.80	4.70	4.98	5.82	6.41	6.80	7.56
2	spd_avg_48.5_S_ch02	48.50	6.75	6.20	6.34	6.97	5.95	4.87	4.68	4.96	5.89	6.50	6.92	7.63
3	spd_avg_41_W_ch03	41.00	6.49	5.94	6.03	6.54	5.63	4.58	4.45	4.62	5.43	6.08	6.50	7.34
4	spd_avg_41_S_ch04	41.00	6.45	5.89	5.98	6.60	5.71	4.63	4.45	4.66	5.50	6.09	6.59	7.29
5	spd_avg_30_W_ch05	30.00	6.04	5.52	5.56	6.00	5.22	4.26	4.07	4.15	4.96	5.59	6.03	6.97
6	spd_avg_10_W_ch06	10.00	5.28	4.84	4.62	5.08	4.31	3.50	3.20	3.18	3.81	4.56	5.07	6.17

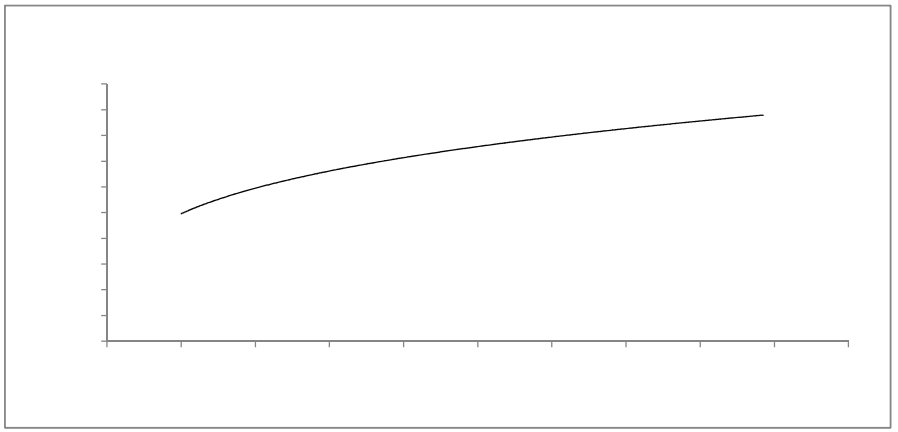
Summer Average Night-time Monthly Average Wind Speed - Based on Measurements

Data Set	Wind Speed Sensor	Height (m)	Vsavg (m/s)	H/H10	Vsavg/V10
1	spd_avg_48.5m_W_ch01	48.50	5.17	4.85	1.52
2	spd_avg_48.5m_S_ch02	48.50	5.18	4.85	1.53
3	spd_avg_41.5m_W_ch03	41.50	4.83	4.15	1.42
4	spd_avg_41.5m_S_ch04	41.50	4.87	4.15	1.44
5	spd_avg_30m_W_ch05	30.00	4.39	3.00	1.29
6	spd_avg_10m_W_ch06	10.00	3.39	1.00	1.00

Model	Vsavg(hub) = Vsavg(10m)*k k=C*(H/H10)^(n)
Hub Height (m)	80
C	0.9917
n	0.2627
k	1.7125

Vsavg - Summer Average Night-time Wind Speed (July, August and Sept)

V10 - Vsavg at 10m height



Noise Emissions for 10m Wind Speeds

V10 [m/s]	Vhub [m/s]	Nearest GE Dataset	Row # Freq [Hz]	4 32	5 63	6 125	7 250	8 500	9 1000	10 2000	11 4000	12 8000	13 16000	Lwa [dBA]
4	7	**1**		68.6	77.4	84.7	88.4	89.8	87.5	85.5	81.0	65.6	26.9	94.8
5	9	**4**		74.3	83.1	90.5	92.0	95.1	97.3	93.5	85.7	69.0	27.3	101.5
6	10	**5**		76.0	84.8	92.4	93.4	95.7	99.2	96.4	87.8	70.7	29.7	103.3
7	12	**7**		77.6	86.4	94.9	96.3	95.7	100.1	99.3	90.3	72.3	32.1	105.0
8	14	**8**		77.4	86.2	95.1	96.9	95.5	99.9	99.3	90.5	71.6	32.2	105.0
9	15	**8**		77.4	86.2	95.1	96.9	95.5	99.9	99.3	90.5	71.6	32.2	105.0
10	17	**8**		77.4	86.2	95.1	96.9	95.5	99.9	99.3	90.5	71.6	32.2	105.0
11	19	**8**		77.4	86.2	95.1	96.9	95.5	99.9	99.3	90.5	71.6	32.2	105.0
12	21	**8**		77.4	86.2	95.1	96.9	95.5	99.9	99.3	90.5	71.6	32.2	105.0

Extract I of test report

Master Information „Noise“, according to “Wind turbine generator systems - Part 11: Acoustic noise measurement techniques.”

IEC 61400-11 ED. 2 from 2002 (published by: Central Office of the IEC, Geneva, Switzerland)

Extract of test report WICO 439SEC04/07 regarding noise emission of wind turbine (WT)

type ENERCON E-48 (Mode I), hub height 75.6 m

General			Technical specifications (manufacturer)	
Manufacturer:	**ENERCON GmbH**		**Rated power (generator):**	**800 kW**
	Dreekamp 5		**Rotor diameter:**	**48,0 m**
	D-26605 AURICH		**Hub height above ground:**	**75,6 m**
Serial number:	**48087**		**Kon. Stahlrohr**	**Tubular steel tower**
WT-location:	**WP Holtriem**	**RW 25.95.228**	**Pitch**	**pitch/stall/active-stall**
		HW 59.42.988		
Complementations of rotor (manufacturer)			**Complementations of gear and generator (manufacturer)**	
Manufacturer of rotor blades	**ENERCON GmbH**		**Manufacturer of gear:**	**No**
Type of blades:	**E48/1**		**Type of gear:**	**No**
Pitch angle:	**variabel**		**Manufacturer of generator:**	**ENERCON GmbH**
Number of blades	**3**		**Type of generator:**	**E-48**
Rated speed(s)/speed range:	**16 – 29,5 rpm (Mode I)**		**Rated speed(s):**	**16 – 29,5 rpm (Mode I)**

Report power curve: calculated power curve, date: 31.08.2004

	Reference		Noise emission parameter	Remarks
	Standardized wind speed at 10 m above ground	Electric power		
Sound power level L_{WA}	*5 ms^{-1}*	*182 kW*	*94.0* dB(A)*	*(1)*
	6 ms^{-1}	315 kW	97.8 dB(A)	
	7 ms^{-1}	499 kW	100.3 dB(A)	
	8 ms^{-1}	671 kW	101.4 dB(A)	
	8.9 ms^{-1}	*760 kW*	*101.9 dB(A)*	*(2)*
	9 ms^{-1}	765 kW	102.0 dB(A)	
	9.6 ms^{-1}	*794 kW*	*102.1 dB(A)*	*(3)*
	10 ms^{-1}	800 kW	101.9 dB(A)	(4)
Tonal components ΔL_a (near proximity)	*5 ms^{-1}*	*182 kW*	No tone	*(1)*
	6 ms^{-1}	315 kW	No tone	
	7 ms^{-1}	499 kW	No tone	
	8 ms^{-1}	671 kW	No tone	
	8.9 ms^{-1}	*760 kW*	No tone	*(2)*
	9 ms^{-1}	765 kW	*No tone*	
	9.6 ms^{-1}	*794 kW*	No tone	*(3)*
	10 ms^{-1}	800 kW	*No tone*	(4)

One third octave sound power level at reference point v_{10} = 5 m/s [dB(A)]												
Frequency	50	63	80	100	125	160	200	250	315	400	500	630
L_{WA}	67.6	71.2	72.9	74.5	78.0	77.0	79.3	84.2	85.6	84.6	84.2	84.4
L_{WA}		75.8			81.5			88.5			89.2	
Frequency	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000
L_{WA}	82.6	82.0	81.4	79.2	78.5	76.6	75.2	74.8	73.1	72.4	70.9	67.4
L_{WA}		86.8			83.0			79.2			75.5	

One third octave sound power level at reference point v_{10} = 6 m/s [dB(A)]												
Frequency	50	63	80	100	125	160	200	250	315	400	500	630
L_{WA}	71.7	74.2	76.9	77.6	78.8	79.7	80.6	86.1	87.8	87.4	87.4	89.0
L_{WA}		79.5			83.6			90.5			92.8	
Frequency	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000
L_{WA}	88.3	88.1	86.9	84.0	82.4	80.9	79.4	79.0	78.1	77.3	74.9	72.9
L_{WA}		92.6			87.4			83.6			80.2	

One third octave sound power level at reference point v_{10} = 7 m/s [dB(A)]												
Frequency	50	63	80	100	125	160	200	250	315	400	500	630
L_{WA}	72.7	76.1	79.3	80.5	80.9	82.9	84.3	89.2	91.2	90.7	90.5	91.5
L_{WA}		81.6			86.3			93.8			95.7	
Frequency	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000
L_{WA}	90.2	89.7	87.9	85.5	84.1	82.6	81.7	81.6	80.7	80.2	79.2	76.3
L_{WA}		94.1			89.0			86.1			83.6	

One third octave sound power level at reference point v_{10} = 8 m/s [dB(A)]												
Frequency	50	63	80	100	125	160	200	250	315	400	500	630
L_{WA}	70.1	74.3	77.3	79.0	81.7	82.3	84.4	90.5	92.7	92.0	91.9	92.9
L_{WA}		79.6			86.0			95.1			97.1	
Frequency	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000
L_{WA}	91.7	90.9	89.1	86.0	83.9	82.1	80.9	81.6	80.6	79.7	79.2	77.3
L_{WA}		95.5			89.1			85.8			83.6	

One third octave sound power level at reference point v_{10} = 9 m/s [dB(A)]												
Frequency	50	63	80	100	125	160	200	250	315	400	500	630
L_{WA}	71.8	74.5	77.1	79.4	82.6	84.2	86.6	91.5	93.5	92.6	92.3	93.1
L_{WA}		79.8			87.3			96.1			97.5	
Frequency	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000
L_{WA}	91.4	90.5	88.7	86.2	85.0	84.3	83.9	84.4	83.9	83.7	82.5	80.1
L_{WA}		95.1			90.0			88.8			87.1	

One third octave sound power level at reference point v_{10} = 9.6 m/s [dB(A)]												
Frequency	50	63	80	100	125	160	200	250	315	400	500	630
L_{WA}	69.9	73.9	75.9	77.4	80.2	80.7	83.4	88.3	91.0	90.8	91.5	93.4
L_{WA}		78.6			84.4			93.3			96.8	
Frequency	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000
L_{WA}	93.2	93.6	92.6	89.9	87.4	85.0	83.2	83.3	82.0	81.1	79.9	77.8
L_{WA}		97.9			92.7			87.6			84.6	

(1) Because of the signal to noise ratio laying in between 3 dB to 6 dB the sound pressure level was corrected with 1.3 dB.
(2) Sound power level at 95% of the rated power.
(3) Wind speed at the maximum sound pressure level minute measured.
(4) One value was measured in the wind bin of 10 ms^{-1}.

This extract of test report is valid only in connection with the enclosed „Manufacturer's certificate" from 2004-08-31.

This declaration does not replace above-mentioned report.

measured by: WIND-consult GmbH
Reuterstraße 9
D-18211 Bargeshagen

- pdf - document was signed electronically -

date: 2006-01-24

Dipl.-Ing. A. Petersen

Dipl.-Ing. W. Wilke

ENERCON E-48 Wind Shear Adjusted Noise Emissions

Night-time Monthly Average Wind Speed Data (2300 to 0700)

Data Set	Wind Speed Sensor	Height	Wind Speed (m/s)											
			January	February	March	April	May	June	July	August	September	October	November	December
1	spd_avg_48.5_W_ch01	48.50	6.61	6.13	6.31	6.86	5.91	4.80	4.70	4.98	5.82	6.41	6.80	7.56
2	spd_avg_48.5_S_ch02	48.50	6.75	6.20	6.34	6.97	5.95	4.87	4.68	4.96	5.89	6.50	6.92	7.63
3	spd_avg_41_W_ch03	41.00	6.49	5.94	6.03	6.54	5.63	4.58	4.45	4.62	5.43	6.08	6.50	7.34
4	spd_avg_41_S_ch04	41.00	6.45	5.89	5.98	6.60	5.71	4.63	4.45	4.66	5.50	6.09	6.59	7.29
5	spd_avg_30_W_ch05	30.00	6.04	5.52	5.56	6.00	5.22	4.26	4.07	4.15	4.96	5.59	6.03	6.97
6	spd_avg_10_W_ch06	10.00	5.28	4.84	4.62	5.08	4.31	3.50	3.20	3.18	3.81	4.56	5.07	6.17

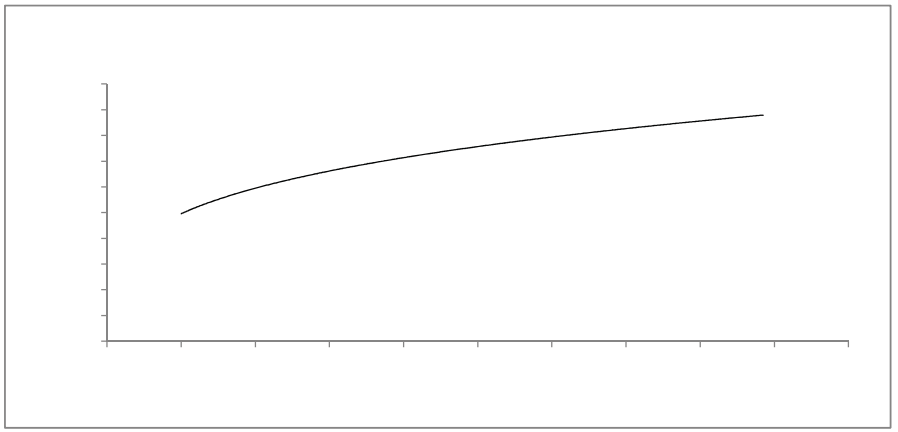
Summer Average Night-time Monthly Average Wind Speed - Based on Measurements

Data Set	Wind Speed Sensor	Height (m)	Vsavg (m/s)	H/H10	Vsavg/V10
1	spd_avg_48.5m_W_ch01	48.50	5.17	4.85	1.52
2	spd_avg_48.5m_S_ch02	48.50	5.18	4.85	1.53
3	spd_avg_41.5m_W_ch03	41.50	4.83	4.15	1.42
4	spd_avg_41.5m_S_ch04	41.50	4.87	4.15	1.44
5	spd_avg_30m_W_ch05	30.00	4.39	3.00	1.29
6	spd_avg_10m_W_ch06	10.00	3.39	1.00	1.00

Model	Vsavg(hub) = Vsavg(10m)*k k=C*(H/H10)^(n)
Hub Height (m)	76
C	0.9917
n	0.2627
k	1.6895

Vsavg - Summer Average Night-time Wind Speed (July, August and Sept)

V10 - Vsavg at 10m height



Noise Emissions for 10m Wind Speeds

V10 [m/s]	Vhub [m/s]	Nearest Dataset	Row # Freq [Hz]	4 63	5 125	6 250	7 500	8 1000	9 2000	10 4000	11 8000	Lwa [dBA]
4	7	**1**		75.8	81.5	88.5	89.2	86.8	83.0	79.2	75.5	94.0
5	8	**3**		81.6	86.3	93.8	95.7	94.1	89.0	86.1	83.6	100.3
6	10	**3**		81.6	86.3	93.8	95.7	94.1	89.0	86.1	83.6	100.3
7	12	**5**		79.8	87.3	96.1	97.5	95.1	90.0	88.8	87.1	102.0
8	14	**6**		78.6	84.4	93.3	96.8	97.9	92.7	87.6	84.6	102.1
9	15	**6**		78.6	84.4	93.3	96.8	97.9	92.7	87.6	84.6	102.1
10	17	**6**		78.6	84.4	93.3	96.8	97.9	92.7	87.6	84.6	102.1
11	19	**6**		78.6	84.4	93.3	96.8	97.9	92.7	87.6	84.6	102.1
12	20	**6**		78.6	84.4	93.3	96.8	97.9	92.7	87.6	84.6	102.1

Transformer Noise Emissions						
Noise Rating	80	dBA				
Mearurement Dist	0.3	m				
Dimensions without Conservator:						
Height	4.27	m				
Length	5.34	m				
Width	6.86	m				
Dimensions with Conservator:						
Height	6.4	m				
Length	7.32	m				
Width	6.86	m				
Measurement Surface Area	206.09	m^2				
Sound Power Level	103	dBA				
Octave Band Emission Estimates						
Centre Frequency	Corr[1]	Ncor[2]	Lwc			
31.5	-1	-11	91			
63	5	-11	97			
125	7	-11	99			
250	2	-11	94			
500	2	-11	94			
1000	-4	-11	88			
2000	-9	-11	83			
4000	-14	-11	78			
8000	-21	-11	71			
			103	dBA		
1. Correction from "Engineering Noise Control", David A. Bies and Colin H. Hansen						
2. Normalization correction to ensure total sound power after band corrections does not exceed measured						

Appendix E: Glossary of Terms

A-Weighting Network	A frequency weighting network intended to approximate the relative response of the healthy human ear to sounds of different frequencies. Overall sound levels calculated or measured using the A-weighting network are indicated by dBA rather than dB.
Acoustically Shielded	A noise emission source from which the sound path to the noise sensitive receptor is blocked by a solid object of sufficient size and mass to consider the noise impact of that source negligible.
Acoustics, Noise and Vibration (ANV)	A unified field of study. Each sub-field is described in a specific context briefly below.
Acoustics	The study of problems where sound is desirable and the quality of the sound is the focus of attention. Examples include conference halls, theatres, classrooms and recording studios.
Noise	The study of problems where sound is undesirable and the reduction of sound is the focus of attention. Examples include noise emissions from industrial facilities and transportation corridors.
Vibration	The study of problems where excessive vibration is undesirable and the reduction of vibration amplitudes or vibration transmission is the focus of attention. Examples include vibration impact of equipment on building structures and the vibration impact of transportation corridors on the occupants of residential dwellings.
Audible	Can be heard with the healthy human ear. The audibility of a noise emission source can vary with ambient noise and distance from the source. When close to a noise source the characteristics of that source are easily distinguishable. If at a practical distance that noise source is masked by other louder sources or is simply quieter than the ambient noise levels then that source is considered to not be audible at the referenced location. This can at times be used as justification for neglecting the noise impact of a specific noise source.
Frequency	Typically the rate in Hertz (Hz) - previously denoted cycles per second, at which an event is repeated. *Normal human hearing extends over a range of frequencies from about 15 Hz to about 15 kHz.*
Grade/Height References	AG – Above Grade, AR – Above Roof, BG – Below Grade, Grade – Ground level
L_{EQ} *- "Equivalent sound level"*	The value of a constant sound pressure level which would result in the same total sound energy as would the measured time-varying sound pressure level if the constant sound pressure level persisted over an equal time duration.
L_N *- "N^{th} Exceedance level"* *where N = 0 to 100*	Is the Sound Pressure Level which is exceeded N percent of the time. For a given data sample the N^{th} exeedance value is equal to the $(100\text{-}N)^{th}$ percentile of the data sample.
Noise Emissions	The sound energy radiating away from a noise source.
Noise Exposures	The sound pressure generated at a receptor.

Noise Impact	The contribution of a specific sound emission source or group of sound emission sources to the resultant SPL or L_{EQ} as measured or predicted at a nearby noise sensitive receptor.
Non-Negligible Noise Source *or equivalently* *Significant Noise Source*	A noise emission source which is determined to have a significant influence on the resultant noise exposures at a noise sensitive receptor. This is typically determined from a combination of site observations, measurements and available sound pressure or power data. Acoustical shielding effects or distance attenuation are often used as justification for excluding sources from this category.
Octave Band	A band of frequencies where the upper limiting frequency (u.l.f.) is twice the lower limiting frequency (l.l.f.). *Octave bands are identified by their centre-frequencies. The octave bands standardized for acoustic measurements include those centered at 31.5, 63, 125, 250, 500, 1000, 2000, 4000, & 8000 Hz.*
1/N Octave Band	A band of frequencies integrally divided from an Octave Band. The u.l.f. equals $2^{1/N}$ times the l.l.f. *The most commonly used frequency band is the 1/3 octave band.*
Peak Particle Velocity (PPV)	The maximum instantaneous velocity experienced by the particles of a medium when set into transient vibratory motion.
Point of Reception *or* *Noise Sensitive Receptor*	Locations were excessive noise may disrupt the lives or activities of occupants/residents or in general were excessive noise would interfere with the intended use of the location under consideration.
Sound Pressure	The instantaneous difference between the actual pressure and the average barometric pressure at a given location.
Sound Pressure Level (SPL)	A measurement of instantaneous sound pressure and equal to 20 times the logarithm (base 10) of the ratio of the instantaneous sound pressure of a sound divided by the reference sound pressure of 20 µPa (0 dB). Reported and measured in decibels (dB or dBA).
Sound Quality or Characteristic	A descriptive qualifier which describes a sounds variation with either time or frequency. Specific qualifiers are described briefly below.
Cyclic Variation	A sound which has an audible cyclic variation in sound level such as beating or other amplitude modulation.

Tonal	A sound which has a pronounced audible tonal quality such as a whine, screech, buzz, or hum. A majority of the acoustic energy is present in a relatively narrow frequency band. A tonal penalty of 5 dB can be applied to any noise source where the manufacturer data or calculated sound power levels indicated a tonal quality to the sound as per ISO 1996-2:2006(E) – Annex D. This standard states that for a discrete tone to be identified, the time-averaged sound pressure level in the one-third octave band of interest is required to exceed the time-average sound pressure levels of both adjacent one-third octave bands by a defined level difference: • 15 dB in the low frequency bands (25 to 125 Hz) • 8 dB in the middle frequency bands (160 to 400 Hz) • 5 dB in the high frequency bands (500 to 10000 Hz) Although this standard assesses tonality based upon the 1/3 octave band spectrum, the 1/1 octave band spectrum can also be assessed on this basis. Typically sound power level predictions and manufacturer sound data only provide 1/1 octave band values. Typically tonal penalties for sources which were measured are only applied if a tone was observed as audible.
Quasi-Steady Impulsive	A sequence of impulsive sounds emitted from the same source, having a time interval of less than one half second (1/2-sec) between successive impulsive sounds.
Steady	A sound does not vary significantly with time and therefore the measured Sound Pressure Level does not vary significantly with time.
Impulsive	A single pressure pulse or a single burst of pressure pulses, as defined by IEC l79A, First supplement to IEC 1 79, Sections 3.1 and 3.2.
Transmission Loss (TL)	The measure of the airborne sound reduction provided by a partition. *Expressed in decibels (dB) it is a measure of ratio of the acoustic energy striking the partition relative to the energy which is transmitted through it.*
Root Mean Square (RMS) Vibration Velocity	Vibration velocity value obtained when the instantaneous velocity is exponentially averaged in a RMS network with a time constant of one second.
Vibration Sensitive Receptor	Locations were excessive vibration may disrupt the lives or activities of occupants/residents or in general were excessive vibration would interfere with the intended use of the location under consideration.